



BANK OF ENGLAND
PRUDENTIAL REGULATION
AUTHORITY

Consultation Paper | CP23/19

Solvency II: Income producing real estate loans and internal credit assessments for illiquid, unrated assets

September 2019



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Responses are requested by Friday 27 December 2019.

Please address any comments or enquiries to:

Life Insurance and Pension Risks Division, MG04-NW
Prudential Regulation Authority

20 Moorgate

London

EC2R 6DA

Email: CP23_19@bankofengland.co.uk

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1 Overview

1.1 This consultation paper (CP) set outs the Prudential Regulation Authority's (PRA) proposed expectations of firms in respect of their modelling of income producing real estate (IPRE) loans within their Solvency II internal models. It also proposes amendments to its expectations in respect of the use of internal credit assessments for assigning fundamental spreads for illiquid, unrated assets.

1.2 The proposals in this CP would result in changes to Supervisory Statement (SS) 3/17, 'Solvency II: Matching adjustment - illiquid unrated assets and equity release mortgages' (see Appendix).

1.3 The CP is relevant to UK insurance and reinsurance companies holding or intending to hold IPRE loans. It is also relevant to firms investing in illiquid, unrated assets within their Solvency II matching adjustment (MA) portfolios.

1.4 The PRA is mindful that the underlying risks and modelling challenges for IPRE loans are generally similar for both insurers and banks holding such assets. Therefore the PRA has attempted to set consistent expectations between insurers and banks where appropriate, and taking into consideration the differences in the way the Solvency II regulations that apply to insurers and the way models for IPRE loans are supervised under the respective CRD IV¹ regulations that applies to banks.

1.5 The PRA is also proposing to change the name of the SS to 'SS3/17: Solvency II: Illiquid unrated assets' to reflect the proposed expansion of its scope.

Background

1.6 An IPRE loan is a method of providing funding to real estate where the prospects for repayment and recovery on the loan primarily depend on the cash flows generated by the asset.

1.7 The PRA has observed that insurance firms are increasingly investing in IPRE loans. These investments are typically held within insurance firms' Solvency II MA portfolios.

1.8 The PRA recognises that IPRE loans can be a particularly challenging asset class to develop internal models for due to their heterogeneous and bespoke nature, as well as the lack of observable market prices and external credit ratings. The PRA is generally concerned about whether firms have adequately identified the risks given the nature of these assets and, where applicable, whether all the material risks have been allowed for within their internal models; otherwise firms may be understating the risks within their internal models and Solvency Capital Requirements (SCRs).

1.9 A further challenge to the modelling of IPRE loans is the relationship between the risks taken on through investment in IPRE loans and how some of those risks are influenced by a firm's own or outsourced management capabilities for these assets, such as the workout function.

1.10 These modelling challenges make it of fundamental importance for firms to undertake a robust risk identification exercise in respect of IPRE lending in order to justify the robustness of their internal models, including where relevant, determining an appropriate amount of MA benefit in the

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

SCR calculation. The PRA seeks to support firms modelling or intending to develop models for IPRE loans by providing its expectations of appropriate practice.

1.11 The PRA has previously set out its expectations for the modelling of MA in internal models in SS8/18 'Solvency II: Internal models – modelling of the matching adjustment',² where the PRA focused on corporate bonds. However, it noted that much of that SS could be applied generically to other assets in MA portfolios and that it expected firms to consider the SS to be more widely applicable. SS8/18 also stated that the PRA may issue further, more bespoke, expectations for the treatment of other assets in MA portfolios.

1.12 Chapter 2 of this CP sets out the PRA's proposals for: i) how the expectations in SS8/18 would apply to IPRE loans; and ii) further expectations for IPRE lending. This CP therefore proposes to build on the expectations set out in SS8/18 and the intention is that the expectations in SS8/18 and the proposals set out in Chapter 2 of this CP would together form the PRA's expectations in respect of the modelling of IPRE loan assets within firms' internal models.

1.13 While the proposals set out apply to IPRE loans the PRA considers many of them to be relevant to a wider range of illiquid assets. Therefore, the PRA encourages firms to consider whether the proposed expectations are applicable to other relevant assets within their portfolios, in particular, for any illiquid assets that share one or more features of IPRE lending set out in paragraph 2.2 of this CP.

1.14 The PRA also recognises that, in general, individual illiquid assets are not typically rated by External Credit Assessment Institutions (ECAIs). The credibility of insurance firms' credit ratings of illiquid assets is therefore underpinned by the robustness of the firm's own internal credit assessment of the assets. Specifically, for IPRE loans that match liabilities in an MA portfolio (MAP), internal ratings are mapped to European Insurance and Occupational Pensions Authority's (EIOPA's) Credit Quality Steps (CQS) to assign the fundamental spread (FS) used in the calculation of technical provisions, and may also represent an input to the calibration of the SCR in an internal model. Furthermore, the internal rating may be a driver for asset valuation eg where referencing market observable credit spreads for assets with ECAI ratings.

1.15 Chapter 3 of this CP sets out the PRA's proposals to set out further expectations in this area.

Purpose

1.16 The purpose of these proposals is to set out the PRA's expectations on how firms assess the risks and develop internal models in respect of IPRE loans (and other relevant assets), and provide additional clarity on the PRA's expectations in respect of the use of internal ratings for unrated, illiquid assets (of which IPRE loans are an example).

Implementation

1.17 The proposed implementation date for the proposals in this CP is Tuesday 31 March 2020.

² July 2018: www.bankofengland.co.uk/prudential-regulation/publication/2018/solvency-2-internal-models-modelling-of-the-matching-adjustment-ss.

Responses and next steps

1.18 This consultation closes on Friday 27 December 2019. The PRA invites feedback on the proposals set out in this consultation. Please address any comments or enquiries to CP23_19@bankofengland.co.uk.

1.19 The proposals set out in this CP have been designed in the context of the current UK and EU regulatory framework. The PRA will keep the policy under review to assess whether any changes would be required due to changes in the UK regulatory framework, including those arising once any new arrangements with the European Union take effect.

1.20 In the event that the UK leaves the EU with no implementation period in place, the PRA has assessed that the proposals would not need to be amended under the EU (Withdrawal) Act 2018 (EUWA). Please see PS5/19 'The Bank of England's amendments to financial services legislation under the European Union (Withdrawal) Act 2018'³ for further details.

2 IPRE Lending

2.1 This chapter sets out the PRA's proposed expectations for IPRE lending in respect of:

- (i) risk identification; and
- (ii) risk calibration and validation of internal models.

Risk identification

2.2 Firms need to evidence compliance with the prudent person principle⁴ (PPP) and ensure that the SCR captures all quantifiable risks to which they are exposed,⁵ whether using the standard formula or the internal model. In the case of an internal model, a firm needs to evidence that its internal model covers all of the material risks to which it is exposed.⁶ The PRA proposes that firms should complete a comprehensive risk identification exercise for IPRE loans in order to evidence compliance with these requirements. The PRA considers the risk identification exercise to be of fundamental importance for IPRE loans given the following (non-exhaustive) additional considerations compared to, say, 'vanilla' corporate bonds:

- (i) The risk profiles of IPRE loans tend to be heterogeneous in nature. Hence for each IPRE loan it is important for the risk identification to consider both the systemic risks (eg property market conditions) and idiosyncratic risks (eg the characteristics of the loan (ie refinancing risk), tenant(s), lease terms, property).
- (ii) IPRE lending does not have a deep and liquid primary or secondary market, and hence there is relatively little external historic data to support a quantitative assessment of the risks. It is therefore important for firms to undertake a fundamental analysis of the underlying risks on their IPRE loans.

³ www.bankofengland.co.uk/paper/2019/the-boes-amendments-to-financial-services-legislation-under-the-eu-withdrawal-act-2018.

⁴ As set out in Chapters 2-5 of the Investments Part of the PRA Rulebook (which transpose Article 132 of the Solvency II Directive (2009/138/EC) ('Solvency II').

⁵ As set out in Solvency Capital Requirement – General Provisions 3.3 of the PRA Rulebook.

⁶ As set out in Solvency Capital Requirement – Internal Models 11.6 of the PRA Rulebook.

- (iii) Insurance firms may own whole IPRE loans rather than a proportion of a given issuance (as may be the case for corporate bonds), and there is greater potential for concentration risks or for portfolios of IPRE loans to be less well-diversified compared to corporate bonds. IPRE loans could also potentially be more exposed to possible systemic risk factors such as political and climate risks.
- (iv) IPRE loans tend to be internally rated by insurers and the PRA considers that the assessment of the credit quality of these loans will be reliant on the robustness of their internal ratings and ongoing monitoring process.
- (v) Investors in IPRE loans are generally reliant on their own management processes and/or those of third-parties involved in the servicing and management of the loan, eg in order to monitor the performance of the IPRE loan, exercise loan covenants, and take actions to minimise losses through the workout function. Therefore, an insurance firm's default and loss experience on its IPRE lending depends on, amongst other things, its own management capabilities and risks arising from third-parties.
- (vi) The illiquid nature of IPRE loans means that insurance firms will have limited ability to sell the assets when the loans get distressed, or where circumstances arise that are beyond the firms' ability to manage.

The role of the risk identification exercise

2.3 A good risk identification exercise should help firms to evidence to the PRA that they have a deep understanding of the risks of their IPRE loan exposures. Furthermore, the output of the risk identification exercise should inform the appropriateness of the standard formula in modelling the SCR of these assets for standard formula firms and the scope of the risks, the underlying methodology and calibration of the model for internal model firms.

2.4 The PRA proposes that a firm's risk identification exercise should consider all sources of risks that the firm could be exposed to in relation to its IPRE loans, and that it should draw on the firm's collective expertise and understanding of the risks.

The process and scope of the risk identification exercise

2.5 The PRA proposes that the risk identification exercise should consider how the firm's policies and practices may have an impact on the performance (and hence risks of the assets) and the detailed considerations that should be taken into account in each case. This is discussed further below in respect of some key areas which contributes to the overall management of an IPRE loan portfolio.

2.6 An overarching point is that the PRA assumes firms already have robust processes in place for each of the areas below relating to the management of an IPRE loan portfolio. Should this not be the case, firms may be exposed to undue risks from its IPRE loan exposures. For example, if a firm's loan underwriting or due diligence process is not robust, it may lead to the firm accepting risks beyond its risk appetite or failing to understand the risks to which it is exposed. In such circumstances the PRA proposes firms to address these underlying issues, otherwise, it may undermine the conclusions of a firm's risk identification exercise.

Loan underwriting practices

2.7 A firm's underwriting policy⁷ and associated practices may help firms to identify the range of features and risks that are present in individual IPRE loans. This in turn may inform the scope of risks that should be covered by the model, and whether the model is capable of reflecting the potential risks arising from any future IPRE loans that meet the firm's underwriting policy. The PRA proposes that as a minimum the risk identification exercise should take account of the features of IPRE loans that the firm has deemed acceptable.

Investment management agreements

2.8 The investment management agreements or mandates for IPRE loans may help firms to understand the risks at an overall IPRE loan portfolio level, for example any potential concentrations by location or sector. Additional risks could also arise over time as a result of agreements with investment managers that give some discretion on the specific assets purchased on behalf of the insurance firm. The PRA proposes that such factors should be considered in the risk identification exercise.

Due diligence

2.9 Similar to the firm's approach to loan underwriting, a firm's due diligence process may identify bespoke features and risks on individual IPRE loans and the PRA proposes that firms recognise this within their risk identification exercise.

Legal agreements

2.10 The bespoke nature of individual IPRE loans means that each IPRE loan may have specific covenants and structural protections that provide protection to the lender. The PRA proposes that firms should consider both the circumstances in which risks may potentially crystallise (which may help to shape a firm's view of the default risks) and any mitigating legal protections available, which may affect a firm's view of the potential recovery actions and hence loss given default, including the potential difficulties that may arise in enforcing the agreements.

Risks arising from third-parties and potential conflicts of interest

2.11 Investors in IPRE loans are normally reliant on a number of third-parties, which may range from the sponsor to those supporting the servicing and management of the underlying property such as the property managing agents and valuation agents. The PRA proposes that the risk identification exercise should consider the risks that may arise from such third-parties, including risks that may arise as a result of any conflicts of interest between these third-parties and the firm (including consideration of whether these risks can be exacerbated where the services to be provided have not been well defined and service standards agreed).

IPRE loan management, including workout capabilities

2.12 Where an IPRE loan is impaired, a firm is reliant on the capabilities of the workout function to manage the asset in order to minimise potential losses. The PRA proposes that the risk identification exercise should include consideration of how the firm's workout processes may affect the potential recoveries/losses that may arise, and the timeliness by which the firm is able to realise any recoveries.

⁷ As required by Article 261 of the Commission Delegated Regulation.

Risk calibration and validation of internal models

2.13 When setting out its expectations for the modelling of MA in internal models in SS8/18, the PRA focused on corporate bonds, but noted that much of that SS could be applied generically to other assets in MA portfolios and that it expected firms to consider the SS to be more widely applicable. The PRA stated that it may issue further, more bespoke, expectations for the treatment of other assets in MA portfolios. In this section, the PRA sets out its proposals on how the expectations in SS8/18 would apply to IPRE loans and has noted that these may also be applicable to other relevant assets.

A one year stress on IPRE loans

2.14 In order to ensure that the capital requirement reflects a realistic change in Basic Own Funds in stress, the PRA proposes that firms are expected to be able to explicitly revalue their IPRE loans in stress, and demonstrate consistency in how the assets are valued in base and stress.

2.15 However, the PRA would not expect firms to automatically assume that it would be appropriate to apply the base valuation methodology in stress without adjustment. The PRA proposes that firms should also consider whether any modifications are required to take into account any new risks or risk interactions that are not present in base conditions.

2.16 Where modifications are required, the PRA proposes that firms evidence that this approach is at least as strong as stressing the current base valuation methodology. The PRA considers that this may be achieved by evidencing that:

- risks captured in the asset valuation methodology are also captured in the risk identification for the internal model; and
- historical scenario testing returns plausible valuation stresses compared with historical market values, to the extent data is reasonably available.

2.17 For the purpose of determining the SCR, firms could choose to model credit rating downgrade and default risk using published transition matrices as a proxy for IPRE loan experience, or determine an implied transition matrix by stressing inputs into an internal credit rating model. The PRA does not set out a preferred approach but proposes expectations on how firms might demonstrate that the output of its chosen methodology is appropriate in the SS.

2.18 IPRE loans are likely to contain covenants and/or loan terms that allow actions to be taken in the case that these covenants are breached. Such breaches may be categorised as a technical default even though it may not affect the timeliness of payments. The PRA proposes that firms taking credit for management actions available upon technical default through, for example, a higher rating should demonstrate how these assumptions meet the requirements set out in Article 236 of the Commission Delegated Regulation.

Stressed fundamental spreads on IPRE loans

2.19 Step two of the five-step framework of the MA in stress calculation referred to in Chapter 4 of SS8/18 aims to capture how the FS could change over the next year due to changes in the modelled stressed economic environment. The key principle underpinning this is that the stressed FS should reflect the risks retained by the firm, ensuring that the MA benefit assumed within the SCR calculation is only representative of risks to which the firm is not exposed owing to the investment strategy used.

2.20 The FS should correspond to a forward looking view of risks retained in stress, taking into account the buy-to-hold investment strategy for assets held in the MA portfolio, and how these risks will impact the performance of its MA assets in the future. The PRA proposes that firms consider the risks noted in SS8/18 when calculating the stressed FS for IPRE loans.

2.21 However, the PRA considers that idiosyncratic risks (eg the characteristics of the loan, tenant(s), lease terms, property) will be retained regardless of the investment time horizon. The PRA proposes to include in the SS a list of areas that firms should consider as a minimum in assessing the retained risks in the calculation of the FS for the purpose of determining the SCR.

2.22 Where property is used as collateral against IPRE loans, the PRA proposes that the stressed FS takes into account the property risks that may impact the value of collateral, and security underpinning the loan and therefore the potential recoveries that may be achieved upon default. A key consideration is the time taken for recoveries and any associated costs of managing the collateral during a workout scenario.

2.23 The MA requires firms to remediate any breaches against MA matching requirements within a two month window set out in Regulation 42(3)⁸ and paragraphs 4.5 and 4.13 of SS7/18 'Solvency II: Matching adjustment'.⁹ For IPRE loans that have defaulted, the PRA considers it unlikely that firms are able to enforce the security package of the defaulted loans within the two month window in order to address any breach without replacing the defaulted assets. The PRA therefore proposes that in calculating the stressed FS, firms consider the rate of recovery against the collateral and security upon default that is realistically achievable within the two month window, rather than the ultimate rate of recovery, unless the defaulted IPRE loans are removed from the MA Portfolio. The PRA also proposes that the readiness of firms to take appropriate action upon default and its workout capabilities should be incorporated into the assessment of recoveries that are achievable within the two month window upon default.

2.24 IPRE loans held within an MA portfolio will need to be assigned a CQS for the purpose of calculating the technical provisions. Internal credit assessments used for this purpose are expected to consider both the risk of default and an increase in the likelihood of a default event. The PRA proposes that the stressed FS captures the same elements considered in firms' internal credit ratings. In ensuring that the stressed FS is appropriately calibrated, the PRA proposes that firms should continue to assess the performance of its internal models against relevant historical experience or data.

2.25 The PRA does not have a preference or expectation on the methodological approach used by firms to model the stressed FS, as long as the chosen approach meets the Solvency II tests and standards. For example, firms may use a bespoke model that captures IPRE loan risks directly or a model based on the approach used for corporate bonds. Where a firm has chosen to assign its stressed FS assumptions for IPRE loans using the same approach as for corporate bonds, the PRA proposes to expect firms to justify why this approach is appropriate and how it reflects all of the relevant risks for IPRE loans.

2.26 The PRA considers that a firm's modelling approach of the stressed FS on IPRE loans will either directly or indirectly use its internal credit assessments which may contain expert judgement

⁸ Available at: www.legislation.gov.uk/ukxi/2015/575/pdfs/ukxi_20150575_en.pdf.

⁹ July 2018: www.bankofengland.co.uk/prudential-regulation/publication/2018/solvency-2-matching-adjustment-ss.

overlays, as inputs into the internal model. The PRA proposes that firms consider the consistency between how its internal rating methodology (including inherent expert judgements) would apply in practice under stressed conditions and what is assumed regarding internal ratings within its internal model.

2.27 The PRA proposes that firms maintain a floor based on long term observations of the risk on IPRE loans as part of the modelling of stressed FS. As a minimum, the PRA proposes this to be as strong as a mechanistic reapplication of the methodology used by EIOPA to assign the FS for the purposes of calculating technical provisions.

2.28 Where a firm's view of credit risk for an IPRE loan is different from EIOPA's definition of the FS, the modelling of the FS in stress could differ materially from the calculation prescribed for use within the Technical Provisions. The PRA proposes that firms consider the materiality of this difference and the implications of this for the calculation of the SCR.

The MA qualifying conditions in stress

2.29 The proposals in the draft SS also expand on considerations relevant to rebalancing of the MA portfolio set out in SS8/18 for IPRE loans.

2.30 Due to the bespoke nature of IPRE loans, the PRA proposes that firms assuming they can rebalance their MA portfolios with existing IPRE loans outside of the MA portfolio should be required to demonstrate the replacement IPRE loans are MA eligible and have similar features to those within the current MA portfolio.

2.31 Due to their illiquid nature, the PRA considers it challenging for the sale of IPRE loans to occur within the two-month window required to rebalance the MA portfolio in stress. For firms relying on the assumption that this is possible, the PRA proposes in the draft SS the level of evidence expected to demonstrate this.

2.32 While the PRA recognises that firms may have pipelines for sourcing IPRE loans, the PRA does not envisage this to be readily available under stressed conditions. Therefore, the PRA considers it to be unlikely that a breach in MA eligibility requirements can be restored by the pipeline of IPRE loans the firm expects to hold in the future, but for which the transaction has not been fully completed.

Validation

2.33 The proposals in the draft SS set out the PRA's expectations around validation of the firm's methodology and calibration for IPRE loans in stress.

2.34 The PRA also proposes that validation should consider the challenges with data availability and comparability between different IPRE loan portfolios in industry benchmarking exercises, where this is used as a validation tool.

3 Internal credit assessments for illiquid, unrated assets

3.1 Chapter 2 of SS3/17 sets out the PRA's expectations in respect of the use of internal credit assessments for assigning fundamental spreads. The PRA is generally concerned if firms' end-to-end internal credit assessment processes are not robust as it may lead to internal ratings for assets that understate their risks and an inappropriate CQS mapping. This may result in a lower amount of assigned FS (and hence level of technical provisions within the MA portfolio) than might otherwise be the case. In addition, where a firm's internal rating is an input into a firm's internal model calculation it may lead to a lower SCR than appropriate.

3.2 Given this concern the PRA continues to scrutinise firms' internal credit assessments. The PRA's proposal expands on the existing expectations in chapter 2 of SS3/17 to clarify how firms can demonstrate the robustness of their internal credit assessments, and hence provide assurance over the assigned CQS and corresponding FS. When the PRA is reviewing firms' internal credit ratings assessments firms are expected to provide evidence that they have adequately considered and documented those areas set out in the SS.

3.3 A key existing expectation is the PRA's view that the CQS to which an internal credit assessment maps should lie within the plausible range of CQSs that could have resulted from an issue rating given by an ECAI (paragraph 2.4 of SS3/17). Some firms consider this expectation can be met by basing their internal credit assessment on an ECAI's published methodology and then using the published CQS mapping for the relevant ECAI. For firms choosing such an approach, the SS sets out some further expectations in this area.

3.4 Regardless of whether a firm's internal credit assessment is based on an ECAI's published methodology or a firm's own approach, the PRA proposes to expand paragraph 2.4 to remind firms that the mapping of ECAI credit ratings to CQS for the purposes of Solvency II is governed by Commission Implementing Regulation (EU) 2016/1799 and 2016/1800 (the ITs) and to note that the PRA will consider these ITs in coming to a view as to whether a firm's mapping of its internal rating to CQS is within the plausible CQS range that could have resulted from an issue rating given by an ECAI.

3.5 A firm's internal credit assessment process will necessarily encompass a range of qualitative and quantitative technical considerations, and draw on expertise from a range of stakeholders (both within and outside the firm). This particularly applies for illiquid assets that are bespoke or have heterogeneous risk characteristics. Therefore the PRA proposes deleting paragraph 2.8 of SS3/17 and replacing this with paragraphs 2.8A to 2.8N to set out in greater detail the breadth of issues the PRA would expect a firm to consider in order to evidence the robustness of its internal credit assessments. In summary, these cover the following areas, but this is not intended to be an exhaustive list:

- (i) Identification of risks.
- (ii) Internal credit assessment methodology and criteria.
- (iii) Data.
- (iv) Expert judgements.
- (v) Expertise and potential conflicts of interest.
- (vi) Validation.
- (vii) On-going appropriateness.
- (viii) Process improvements.

3.6 The proposed updates are discussed further below.

Identification of risks

3.7 The PRA considers that the starting point for an internal credit assessment process is the identification of the risks relevant to the asset under consideration. To expand on this point the PRA proposes factors that firms should consider at a minimum. In addition, in recognition that there is potential for overlap between the risks considered under an internal credit assessment and, where applicable, an internal model, the PRA proposes that the risk identification process for each should be consistent.

Internal credit assessment methodology and criteria

3.8 The PRA considers that a firm's choice and implementation of its internal credit assessment methodology and criteria need careful consideration. The proposed updates provide further expectations on the areas that should be covered by firms, and for firms to justify their choice of internal credit assessment methodology and recognise any limitations.

3.9 In addition, the PRA recognises that firms may choose to adopt an ECAI's published credit rating methodologies for the purpose of determining internal ratings. However, the PRA is concerned the robustness and integrity of published credit rating methodologies can be lost where they are not adequately applied. To mitigate this concern the PRA sets out some additional expectations in these circumstances, a key one being that where a firm has decided that its internal credit assessment methodology for a particular asset class should be based on an ECAI's published credit rating methodology that is applicable for that asset class, the PRA also expects the firm will apply that methodology holistically and for it not to be used selectively.

Expert judgements

3.10 The PRA recognises that expert judgement is a key part of a firm's internal credit rating assessments, for example to adjust a rating down or up due to qualitative factors. Therefore the PRA proposes that firms' internal ratings processes should have a well-documented and structured process on the use of expert judgements, and the chosen expert judgements should be transparent, justified, and consideration be made as to the circumstances under which they would be considered false. The aim of this proposal is for firms to give the PRA greater comfort on the robustness of the process they have undertaken to arrive at any key expert judgements, that such a process has been applied consistently and that the expert judgements that may materially impact a firm's internal ratings are transparent and subjected to an appropriate level of governance.

Expertise and potential conflicts of interest

3.11 The PRA notes that an essential feature of an ECAI rating is the independence of the ratings analysts and rating committees, from the entity seeking the ratings, whereas for insurers this separation may not be clear. Therefore the PRA proposes that firms should clearly demonstrate the independence of the internal credit assessment function. It would be a concern if, for example, the function(s) responsible for sourcing the assets were able to unduly influence the internal credit assessment function's view of the internal rating or risks.

3.12 The PRA also proposes that effective controls are in place to manage any potential conflicts of interest between different stakeholders involved in the overall management of the assets. For example a potential conflict of interest may arise if the investment manager is remunerated based on the performance of the asset and is also responsible for, or plays a role in, the internal credit assessment.

Process improvements

3.13 The PRA recognises that internal credit assessments for assets are not just performed once, but rather, to remain reliable, should be repeated on an on-going basis over the lifetime of the assets. The PRA proposes that firms monitor their own credit experience against the internal credit assessments to identify improvements to the methodology and process.

Outsourcing

3.14 The PRA proposes that the expectations set out in paragraph 2.8A to 2.8M would also apply where a firm has outsourced its internal credit assessment process. In particular, the PRA would expect firms to demonstrate that they have effective systems and processes in order to oversee the outsourcer.

Other changes

3.15 The PRA proposes changes in paragraph 2.10 of SS3/17, to make it clear that the section starting paragraph 2.10 sets out additional expectations applying to assurance for internal credit assessment for all restructured assets. These expectations on assurance include, but are not limited to, restructured equity release mortgages.

4 The PRA's consultation process

4.1 The PRA has a statutory duty to consult when introducing new rules and, when not making rules, has a public law duty to consult widely where it would be fair to do so. The PRA meets these obligations by providing the following in its consultations:

- a cost benefit analysis;
- an explanation of the PRA's reasons for believing that making the proposed rules is compatible with the PRA's duty to act in a way that advances its general objective,¹⁰ insurance objective¹¹ (if applicable), and secondary competition objective;¹²
- an explanation of the PRA's reasons for believing that making the proposed rules are compatible with its duty to have regard to the regulatory principles;¹³ and
- a statement as to whether the impact of the proposed rules will be significantly different to mutuals than to other persons.¹⁴

4.2 The Prudential Regulation Committee (PRC) should have regard to aspects of the Government's economic policy as recommended by HM Treasury.¹⁵

¹⁰ Section 2B of FSMA.

¹¹ Section 2C of FSMA.

¹² Section 2H(1) of FSMA.

¹³ Sections 2H(2) and 3B of FSMA.

¹⁴ Section 138K of FSMA.

¹⁵ Section 30B of the Bank of England Act 1998.

4.3 The PRA is also required by the Equality Act 2010¹⁶ to have due regard to the need to eliminate discrimination and to promote equality of opportunity in carrying out its policies, services and functions.

Cost benefit analysis

4.4 The draft SS clarifies the PRA's expectations as to how the Solvency II requirements could be met. The proposals provide clarity and consistency on the PRA's expectations and should provide assistance to firms regarding any future development of their modelling approaches in respect of IPRE loans. It shares with the industry a number of the considerations the PRA proposes to take into account in assessing internal model (change) applications against the Solvency II tests and standards for internal models but does not impose additional requirements. Therefore, the PRA does not expect firms would incur any additional costs as a direct result of the proposals set out in the draft SS. The overall economic effects of the Solvency II requirements in this area have been considered previously.¹⁷

Compatibility with the PRA's objectives

4.5 The PRA considers that the proposals set out in this CP are compatible with its statutory objectives under the Financial Services and Markets Act 2000 (FSMA). The proposals would contribute to the PRA's general objective to promote the safety and soundness of firms and the PRA's specific insurance objective to contribute to the securing of an appropriate degree of protection for those who are or may become insurance policyholders, by helping ensure firms perform appropriate credit assessments of their illiquid assets and that the modelling of IPRE loans and other relevant illiquid assets within firms' Solvency II internal models appropriately reflects the risks to which they are exposed. This should reduce the risk to safety and soundness through the SCR being understated.

4.6 When determining the general policy and principles by reference to which it performs particular functions the PRA is legally required, so far as is reasonably possible, to facilitate effective competition in the markets for services provided by PRA-authorized persons in carrying out regulated activities. The PRA considers that the proposals in this CP will facilitate effective competition because they primarily help ensure that risks in MA portfolios are assessed in a consistent manner by all firms.

Regulatory principles

4.7 The PRA has considered matters to which it is required to have regard when developing the proposals in this CP, and it considers that they are compatible with the regulatory principles. The four principles of particular relevance to the proposals in detailed in paragraphs 4.8 to 4.11.

4.8 The principle that a burden or restriction which is imposed on a person should be proportionate to the benefits, which are expected to result from the imposition of that burden. The PRA will use its supervisory judgement when assessing which firms meet the proposed expectations which may vary between firms depending primarily on differences in their risk exposures.

¹⁶ Section 149.

¹⁷ See the Financial Services Authority's CP11/22 'Transposition of Solvency II – Part 1', November 2011: www.bankofengland.co.uk/prudential-regulation/publication/2013/transposition-of-solvency-2-part-1-and-2; and the PRA's CP16/14 'Transposition of Solvency II: Part 3', August 2014: www.bankofengland.co.uk/prudential-regulation/publication/2014/transposition-of-solvency-2-part-3.

4.9 The principle for the PRA to use its resources in the most efficient way. The PRA considers that communicating its expectations in these areas through an SS will allow firms to understand the factors the PRA considers to be important when assessing internal credit assessments and the internal model of IPRE loans, and should therefore help the PRA's relevant review processes to operate more efficiently.

4.10 The principle that the PRA exercises its functions as transparently as possible. The proposals contained in this CP build on CP48/16 and resulting PS14/17 'Solvency II: matching adjustment - illiquid unrated assets and equity release mortgages'¹⁸ and CP24/17 and resulting PS19/18 'Solvency II: Internal models – modelling of the matching adjustment'¹⁹. The proposals clearly set out the PRA's expectations in respect of internal credit assessments and the modelling of IPRE loans and therefore indicates to firms the factors the PRA is likely to take into account in assessing these. The PRA also considers that the consolidation of all relevant material relating to illiquid, unrated assets into a single SS (as drafted in the Appendix) will make it easier for firms to identify and meet the PRA's expectations.

4.11 The principle of sustainable growth, trade and better outcomes for consumers. Illiquid assets and IPRE loans in particular are a major investment asset for some insurers providing retirement income products. Those same insurers are also key providers of long-term investment to the UK economy. The PRA's proposals balance any short-term impact of the proposals on insurers' willingness to invest further in IPRE loans or illiquid assets more generally with the additional resilience that we expect these proposals to bring to insurers' balance sheets.

Impact on mutuals

4.12 The PRA considers that the impact of the proposals on mutuals will be no different to that on other firms.

HM Treasury recommendation letter

4.13 HM Treasury has made recommendations to the PRC about aspects of the Government's economic policy to which the PRC should have regard when considering how to advance the PRA's objectives and apply the regulatory principles.²⁰ The aspects of the Government's economic policy most relevant to the proposals in this CP are: competition, growth; and better outcome for consumers. These aspects have been considered in the 'compatibility with the PRA's objectives' and 'regulatory principles' sections above.

Equality and diversity

4.14 The PRA has performed an assessment of the policy proposals and does not consider that the proposals give rise to any equality and diversity implications.

¹⁸ CP48/16 and PS14/17 are available at: www.bankofengland.co.uk/prudential-regulation/publication/2016/equity-release-mortgages.

¹⁹ CP24/17 and PS19/18 are available at: www.bankofengland.co.uk/prudential-regulation/publication/2017/solvency-ii-internal-models-modelling-of-the-matching-adjustment.

²⁰ Information about the PRC and the recommendations from HM Treasury are available on the Bank's website at www.bankofengland.co.uk/about/people/prudential-regulation-committee.

Appendix: Draft amendments to SS3/17 'Solvency II: Matching adjustment – illiquid unrated assets and equity release mortgages'

In this appendix, new text is underlined and deleted text is struck through.

2 Use of internal credit assessments for assigning fundamental spreads

...

2.4 An internal credit assessment will then need to be mapped onto a CQS. The PRA's view is that the CQS to which an internal credit assessment maps lie within the plausible range of CQSs that could have resulted from an issue rating given by an ECAI. Broad consistency between the CQSs resulting from firms' internal assessments and ECAI issue ratings will help to mitigate the risk of undue bias in the resulting FSs give the PRA assurance that the FS resulting from the assigned CQS and sector is appropriate.

2.4A The PRA notes that the mapping of ECAI credit ratings to CQS for the purposes of Solvency II is governed by Commission Implementing Regulation (EU) 2016/1799 and 2016/1800 (the ITSs). The PRA will consider the ITSs in assessing whether a firm's mapping of its internal rating to CQS is within the plausible CQS range that could have resulted from an issue rating given by an ECAI. The PRA's expectations for internal credit assessments are expanded on in paragraph 2.8A to 2.8N.

2.5...

2.6...

2.7...

2.8 [Deleted] ~~The detailed scope of the assurance will be set by the PRA in each case but should, without limitation, include:~~

- ~~• a detailed description of all the risks affecting each asset and how the insurer has satisfied itself that it has considered all potential sources of default and loss;~~
- ~~• the methodology for assessing and quantifying these risks, including the scope of qualitative and quantitative factors considered and the calibration of any stresses;~~
- ~~• the availability, appropriateness, and quality of the data over the credit cycle on which these risk assessments and calibrations are based, including how the firm has allowed for partially available or missing data in the internal credit assessment and the CQS mapping;~~
- ~~• justification of expert judgements;~~
- ~~• evidence that the credit assessment and CQS mapping have been performed by individuals with relevant asset-specific credit risk expertise, who are free of conflicts of interest, be they internal or external to the firm;~~
- ~~• validation of the results of the CQS mapping process. For example, how the insurer has satisfied itself that the internal credit assessment used as a starting point will provide an accurate assessment of credit risk, and how the overall CQS mapping process has allowed for all of the sources of credit risk, whether qualitative or quantitative;~~
- ~~• the process for ongoing review of the credit assessment and FS mapping, including how the firm has satisfied itself that these will remain appropriate over time and under a range of operating experience. It is expected that the credit assessment and CQS mapping will be~~

~~reviewed at regular intervals, as well as in response to changes in relevant economic conditions; and~~

- ~~• how any previously identified shortcomings in the firm's internal credit assessment process (including any that were identified as part of the independent reviews mentioned in paragraph 2.2 above) have been addressed.~~

2.8A In order for a firm to evidence the robustness of its internal credit assessments, and hence provide assurance in respect of the assigned CQS and FS, the PRA expects the following areas to be implemented and documented.²¹ This is not an exhaustive list.

Identification of risks

2.8B There should be a detailed description of all the risks affecting each asset and how the firm has satisfied itself that it has considered all potential sources of systemic and idiosyncratic risk in its internal credit assessment. This should include consideration of the following factors at a minimum:

- external market factors;
- cash-flow predictability;
- collateral;
- loan characteristics (eg refinancing risk);
- risks arising from third-parties (eg sponsors, parties involved in the servicing and managing of the loan);
- legal, political and regulatory risks; and
- potential future risks eg impacts arising from climate change risks.

2.8C In addition, where a firm uses an internal model, the PRA expects the identification of risks under the internal model and internal credit assessment process to be consistent with each other.

Internal credit assessment methodology and criteria

2.8D The PRA expects firms' internal credit assessment methodology and criteria to:

²¹ Solvency II Directive 2009/138/EC Article 44 (2) (c).

- set out the overall credit assessment philosophy and the ratings process;
- set out the scope of types of loans or entities the methodology applies to;
- set out the scope of risks covered and define the credit and other relevant risks being measured and, where an ECAI has a published credit rating methodology for an asset class, have in scope at least the same range of risks, qualitative and quantitative factors and risk mitigating considerations;
- describe how different loan features, risks and other factors relevant are assessed;
- set out the key assumptions and judgements underlying the assessment, including the treatment of assumed risk mitigating actions which rely on the firm's own or outsourced processes involved in managing assets through their lifecycles;
- define whether the credit assessment is calibrated to a point-in-time or through-the-cycle;
- use both qualitative and quantitative factors; and,
- explain the limitations of the internal credit assessment, for example, risks which are not covered, and when it would not be appropriate to allow for these limitations by overriding judgements.

2.8E The PRA expects a firm to justify its internal credit assessment methodology and to recognise any limitations.

2.8F Where a firm has decided that its internal credit assessment methodology for a particular asset class should be based on an ECAI's published credit rating methodology that is applicable for that asset class, the PRA also expects the firm to apply that methodology holistically and for it not to be used selectively.

2.8G Regardless of the choice of a firm's internal credit assessment methodology, firms should also describe how they have maintained broad consistency between the CQSs resulting from their internal assessments and those, which could have resulted from an issue rating given by an ECAI.

Data

2.8H The PRA expects firms to consider the availability, appropriateness, and quality of the data over the credit cycle on which their internal risk assessments and calibrations are based, and should clearly document how they have allowed for incomplete or missing data in the internal credit assessment. This includes consideration of whether the data is sufficient to support the proposed CQS mapping.

Expert judgements

2.8I The PRA expects expert judgements made in the determination of the internal credit assessment and CQS mappings to be transparent, justified and documented, and consideration given to the circumstances in which judgements on the rating would be considered false. Furthermore, the history of judgements applied to deviate from the result of the internal credit rating methodology should be well documented, as should any other end of process overriding adjustments to the internal credit ratings themselves. The key judgements should be subject to the appropriate level of governance within the overall credit assessment process.

Expertise and potential conflicts of interest

2.8J The PRA expects to see evidence that the credit rating methodology and criteria development and approval, credit assessment and CQS mapping have been performed by individuals with relevant asset-specific credit risk expertise and competency, who are free of conflicts of interest, be they internal or external to the firm. In particular, firms should demonstrate the independence of the internal credit assessment function and that effective controls are in place to manage any potential conflicts of interest between different stakeholders involved in the overall management of the assets.

Validation

2.8K The PRA expects firms to undertake validation of the internal credit assessment methodology and criteria including how it has identified and allowed for all sources of credit risk, whether qualitatively or quantitatively. In addition, the PRA expects the firm's validation to ensure that the internal credit assessment has satisfied the points in paragraph 2.4.

On-going appropriateness

2.8L The PRA expects firms to have a robust process for the ongoing review of the credit assessments (and CQS mapping), including how the firm has satisfied itself that these will remain appropriate over the lifetime of the assets and operate robustly under a range of different market conditions and operating experience. The credit assessment and CQS mapping should be reviewed at regular intervals, as well as in response to changes in relevant external market conditions or other factors which are expected to impact the rating. In addition to this firms should monitor how the internal credit assessment criteria is applied consistently both within and across asset categories.

Process improvements

2.8M The PRA expects firms to identify potential refinements needed to their methodology by monitoring their own credit experience against the internal credit rating assessments and changes made by ECAs to their methodology and criteria. This should include addressing any previously identified shortcomings in the firm's internal credit assessment process (including any that were identified as part of the independent reviews mentioned in paragraph 2.2 above).

2.8N Where some or all of the internal credit assessment process is outsourced, the PRA expects firms to also demonstrate the effectiveness of the systems and processes the outsourcer has in place, including validation, to ensure that outsourced internal credit assessments for assets satisfy the expectations set out in 2.8A to 2.8M and that the requirements of SII Regulations 2015/35/EC Article 274 are also satisfied. Firms should provide evidence that appropriate oversight systems and processes including governance are in place and have been carried out effectively for outsourced credit assessments.

...

Additional expectations Assurance on internal credit assessments for restructured assets including equity release mortgages

2.10 The PRA expects that internal credit assessments for restructured ~~ERM notes~~ assets will be anchored on a risk analysis of the legal documentation between all parties concerned. In the case of restructured ERMs, this includes, for example, the original loan agreement between the borrower and the lender, the contract between the originator and the insurance firm, and the legal structure of the notes issued by the special purpose vehicle (SPV).

...

4 Risk identification and modelling of Income Producing Real Estate loans

4.1 This chapter sets out the PRA's expectations of firms regarding the risk identification exercise and the risk calibration and validation of internal models (particularly in respect of the application of the MA within the calculation of the SCR) in respect of Income Producing Real Estate (IPRE) loans, which are generally less liquid than some other assets such as corporate bonds. However, many of the expectations could be applied more widely to other less liquid assets, and the PRA therefore expects firms to consider whether these expectations are applicable to other relevant assets within their portfolios.

4.2 IPRE lending refers to a category of funding for real estate where the prospects for repayment and recovery on the exposure depend primarily on the cash flows generated by the asset (usually lease or rental payments from commercial tenants).

4.3 Our observation is that IPRE properties are generally structured into an SPV with loans made directly to the SPV. The SPV structure is used to isolate the collateral from the bankruptcy and insolvency risks of the other entities that participate in the transaction.

4.4 The MA allows firms to adjust the relevant risk-free interest rate term structure for the purpose of calculating the best estimate of a portfolio of MA-eligible insurance or reinsurance obligations. To apply an MA, firms must have PRA approval, as per Regulation 42 of The Solvency 2 Regulations 2015. Firms with MA approval are permitted to apply an MA for the purposes of determining both technical provisions (TPs) and the Solvency Capital Requirement (SCR). The PRA expects firms to have confidence that the level of MA benefit assumed in each of these calculations is fit for purpose. The PRA has previously published its expectations relating to modelling of the MA within the SCR calculation in SS8/18 'Solvency II: Internal models – modelling of the matching adjustment'.²² These expectations primarily applied to the risks arising in respect of corporate bond assets within firms' MA portfolios. However, the PRA recognised that many of the expectations in paragraph 1.8 of SS8/18 would apply regardless of the assets held.

Risk identification

The role of the risk identification exercise

4.5 The PRA requires that 'as regards investment risk, a firm must demonstrate that it complies with the Investments Part of the PRA Rulebook.'²³ The Investments Part sets out the 'prudent person principle' which requires that firms 'must only invest in assets and instruments the risks of which it can properly identify, measure, monitor, manage, control and report, and appropriately take into account in the assessment of its overall solvency needs in accordance with Conditions Governing Business 3.8(2)(a).'

²² July 2018: <https://www.bankofengland.co.uk/prudential-regulation/publication/2018/solvency-2-internal-models-modelling-of-the-matching-adjustment-ss>.

²³ Conditions Governing Business 3.4 of the PRA Rulebook.

4.6 The PRA reminds firms that the SCR must capture all quantifiable risks to which firms are exposed²⁴ whether using the standard formula or internal model, and internal models used to calculate the SCR must capture all material risks that firms are exposed to.²⁵

4.7 In order to ensure that these requirements are satisfied for IPRE loans, the PRA expects firms to complete a comprehensive risk identification exercise that considers all sources of risks that the firm could be exposed to in relation to their IPRE loans. Due to the bespoke nature of IPRE loans, the risk identification exercise should consider features of individual loans. This applies to standard formula or internal model firms that have IPRE loans.

4.8 The internal rating process (including internal rating models) and the SCR should reflect the risks identified in this risk identification exercise. This is also relevant to internal ratings used to derive the MA benefit attributed to IPRE loans for the purposes of calculating technical provisions or for assigning stressed fundamental spreads.

4.9 The PRA expects firms to be able to demonstrate that the IPRE loan risks captured by its internal ratings process offer sufficient discriminatory power in determining the credit quality of its assets and that these risks are reflected, as appropriate, in the internal rating models.

4.10 The PRA expects internal model firms to use the risk identification exercise to influence the scope, methodology and calibration of the internal model used to calculate the SCR.

4.11 Whilst the SCR may be calibrated to cover only a subset of the risks identified in the risk identification exercise, eg where some risks have been fully mitigated by the firm, firms are expected to clearly justify and explain any exclusions of risks identified in the risk identification exercise from the SCR calibration. Firms should also allow for any secondary risks introduced through risk-mitigation.

4.12 For standard formula firms, the PRA expects the output of the risk identification exercise to be considered and incorporated into the standard formula appropriateness assessment, where relevant. Firms are required to assess the significance of the extent to which its risk profile deviates from assumptions underlying the standard formula²⁶. In the event that the standard formula does not reflect the firm's risk profile, firms may need to consider whether it should use a partial internal model to calculate the SCR. For internal model firms, the internal model should be validated against the output of the risk identification exercise, noting any model limitations.

4.13 The PRA expects the risk identification exercise to be carried out by persons with the appropriate skills and experience.

4.14 The risk identification exercise should also take into account how the firm's own or outsourced credit risk management processes may have an impact on the performance, and hence risks, of the assets.

4.15 The PRA does not expect the risk identification exercise to be a one-off exercise. Firms are expected to undertake a risk identification exercise regularly to maintain an up-to-date view of existing exposures, and to capture potential risks arising from the known pipeline of new IPRE loans.

²⁴ Solvency Capital Requirement – General Provisions 3.3 of the PRA Rulebook.

²⁵ Solvency Capital Requirement – Internal Models 11.6 of the PRA Rulebook.

²⁶ Conditions Governing Business 3.8(2)(c) in the PRA Rulebook.

Other circumstances which may require a risk identification review include, but are not limited to, changes to the risk appetite, changes in the legal, political or regulatory landscape, a significant change to external market conditions, a change in investment mandates, or the consideration of new IPRE loans.

The process and scope of the risk identification exercise

4.16 In the risk identification exercise, the PRA expects firms to consider all relevant systemic and idiosyncratic risks associated with their IPRE loans.

4.17 The risk identification exercise should consider features of existing individual IPRE loans and those that may be accepted in future in line with a firm's risk appetite and tolerances set out in its underwriting policy and investment mandates. Grouping of assets by features may be acceptable but care is required to ensure no risks introduced by bespoke features are missed.

4.18 The PRA also expects firms to consider interactions between the risks identified, and how any interdependence may affect both the outcome and impact of risks crystallising. For example, a reduction in the level of rent receivable from a commercial property would increase the probability of default through a reduction of the income coverage ratio, and increase the loss given default, through a reduction in the value of the property on which the loan is secured.

4.19 The risk identification exercise should consider the following high-level areas, as a minimum:

- (i) external market factors, taking into account property market conditions (eg supply vs demand) and wider economic risks (eg interest rates, economic growth);
- (ii) cash-flow predictability, taking into account for example the tenant(s), lease terms, voids and re-lettings;
- (iii) collateral, taking into account the characteristics (eg location, design and condition) of the underlying property(s), property and valuation risks, and ability to realise the collateral value within a timely manner and the security package;
- (iv) loan characteristics (eg leverage, serviceability, pre-payment risk, refinancing risk, covenants or structural protections);
- (v) risks arising from third-parties, such as the strength of sponsor and its willingness to provide support, and parties involved in the servicing and managing of the loan, SPV and/or underlying property(s);
- (vi) concentration, basis and liquidity risks; and
- (vii) legal, political and regulatory risks.

4.20 The PRA expects firms to demonstrate that they have appropriate skills and experience to implement the controls and risk management actions assumed in the management of IPRE loan exposures within the internal model. Firms should also demonstrate that these controls and risk management actions can be executed in the timescales assumed. Where this is not possible, firms should consider the extent of any differences between the assumed and actual effect of controls relating to the management of IPRE loan exposures, including timeliness and whether any adjustments are necessary to the internal model as a result. The PRA expects firms to ensure that the risk management actions assumed meet the requirements set out in Article 236 of the Commission Delegated Regulation.

4.21 The PRA expects firms' risk identification exercise and the assumptions underpinning the internal model to reflect the risk profile of the firm's IPRE loans. This will be influenced by relevant policies and practices of a firm relating to IPRE lending. Such policies and practices are likely to cover the following areas:

- (i) underwriting of loans, eg the criteria upon which the approval of any loan is based,²⁷ and the impact this may have on the risks accepted on IPRE lending;
- (ii) the due diligence process applied to the loan, including any documented standards, relating to IPRE loans that may be applied to sponsors, borrowers, contracts, collateral property and security package;
- (iii) agreements between the firm and an internal or external IPRE loan investment manager relating to the obligations of the investment manager,²⁸ eg investment mandates;
- (iv) legal protections required through loan covenants or structural protections;
- (v) potential conflicts of interest relating to IPRE lending, including identification and management thereof;²⁹
- (vi) outsourcing of any functions relating to IPRE lending,³⁰ where relevant;
- (vii) ongoing administration, servicing and monitoring of IPRE lending;³¹ and
- (viii) dealing with any distressed assets,³² eg through the workout process.

Impact of loan underwriting practices on risk profile

4.22 The PRA expects firms' risk identification exercise to reflect the loan underwriting policies and practices of a firm, and the impact of these on the risks that may be accepted. Firms' considerations should to cover at least the following:

- (i) IPRE loan features that would be acceptable, such as property, tenant and borrower/sponsor features;
- (ii) covenants or protections relating to the ongoing management of the IPRE loans that are required as a minimum; and
- (iii) the sources of concentration risk for IPRE loans and the limits that apply.

4.23 In order to demonstrate that all material risks have been identified, the PRA expects firms to evidence that underwriting due diligence has been carried out on sponsors, borrowers, contracts, collateral property and security package to the standard required by the firm's risk appetite and tolerances as set out in its underwriting policy and investment mandates.

²⁷ Article 261 (1) (a) of the Commission Delegated Regulation.

²⁸ Article 274 (3)(c) of the Commission Delegated Regulation.

²⁹ Article 258 (5) of the Commission Delegated Regulation.

³⁰ Article 274 (1) of the Commission Delegated Regulation.

³¹ Article 261 (1)(c) of the Commission Delegated Regulation.

³² Article 261 (1)(c) of the Commission Delegated Regulation.

Impact of investment management agreements on risk profile

4.24 The PRA expects firms' risk identification exercise to consider the agreements with investment managers, such as investment mandates for IPRE loans, including any potential risks introduced by discretion available to investment managers. Firms' risk identification should also consider the potential for the investment manager to act against the firm's interests.

Impact of legal agreements on risk profile

4.25 The PRA expects the risk identification exercise to consider the impact of the protections provided in the loan agreement by the security package and terms and conditions (eg covenants and structural protections) on the risks accepted on IPRE loans. Any gaps in the protection provided should be captured in the risk identification exercise. In addition, the PRA expects firms to consider any difficulties that may arise in enforcing the legal agreements.

Impact of third-parties and potential conflicts of interest on risk profile

4.26 The PRA expects firms to demonstrate that the IPRE loan risk identification exercise takes account of potential third-party actions and conflicts of interest that may impact the IPRE loan risk profile, and the process around managing any such conflicts. The PRA does not expect that the interests of all parties in an IPRE loan transaction will be fully aligned at all times and firms should therefore consider scenarios when there is likely to be a lack of alignment in determining the risks to which they are exposed via their IPRE loans.

Impact of outsourcing arrangements on risk profile

4.27 Where any key functions are outsourced, the PRA expects firms to demonstrate that the outsource providers are able to identify, mitigate and manage any conflicts of interest and report them to the firm.

Impact of IPRE loan management, including workout capabilities on risk profile

4.28 The risk identification exercise is expected to consider the processes and policies covering the ongoing maintenance of IPRE loan exposures, including the firm's capabilities in the management of distressed assets eg the firm's workout function, which may affect the level of recoveries achievable, and the timeliness of this. The functionality of these processes and policies is expected to be considered in economic downturn scenarios, where multiple loans could become distressed at the same time.

4.29 Firms may choose to design IPRE loan contracts that include options that may be triggered in the event of a risk crystallising, such as technical defaults.³³ If options are available to a firm in the event of a technical default on IPRE lending, the risk identification exercise is expected to consider the impact and reasonableness of exercising any such option upon technical default.

³³ A condition or covenant in the contract terms is breached that is defined to be a default event, distinct from payments not being made when they fall due.

Risk calibration and validation of internal models

4.30 For internal models, the PRA does not have a preference on the approach taken by firms to model the risks on IPRE loans, subject to the chosen approach meeting the relevant tests and standards. For example, firms may choose to model a proxy for the IPRE loan exposures, or to model the underlying IPRE loan risk drivers directly. In deciding an appropriate approach to take, however, the PRA expects firms to consider whether the robustness of the modelling approach is commensurate with the materiality of IPRE loans held, and to clearly explain how the IPRE loan risks (ie arising from the risk identification exercise in the previous section on Risk Identification) have been adequately captured by the model. In addition, firms should be able to articulate the link between its modelling approach and its internal credit rating approach, and to demonstrate that the approach taken meets the requirements of the Use Test.³⁴

4.31 The PRA is aware that firms may have more limited data for IPRE loans than for other types of asset that are traded more frequently. Consequently, the PRA expects that the model methodology and calibration will make greater use of expert judgement and a qualitative assessment of IPRE loan characteristics. These judgements should be based on the expertise of persons with the appropriate skills and experience. Firms should assess the credibility of expert judgements made in calibrating extreme scenarios where data is limited, and the materiality of these judgements. These judgements should reflect the level of uncertainty within the data in order to demonstrate that firms' allowance for IPRE loan risks is appropriately calibrated. Firms should ensure that these have gone through appropriate governance, communication, documentation and validation in line with Chapter 4 (Assumption setting and expert judgement) of the EIOPA Guidelines on the use of internal models.³⁵

A one-year stress on IPRE loans

4.32 The PRA expects firms to re-value IPRE loans in stress, in a manner consistent with the valuation methodology applied to determine the asset value reported in the Solvency II balance sheet. However, some modifications may be required, for example to ensure that the output of the internal model does not include a material model error³⁶ adjustments for valuation uncertainty may be required to complete the valuation in stress for the purposes of determining the SCR. In this case, firms should demonstrate that the resulting methodology produces a valuation that is no higher than the valuation based on the valuation methodology without any modifications including any allowance for valuation uncertainty or model error.

4.33 For the purposes of determining the SCR, firms may choose to determine an implied transition matrix by stressing inputs into the internal credit rating model. Such firms should consider the risks that may affect the IPRE loan cash flows in this assessment, including those noted in paragraph 4.19.

4.34 The PRA expects firms to assess the shape (ie distribution by rating) of the IPRE loan transition matrix (where this is used or defined by the firm), if relevant, and validate the appropriateness of the output of the chosen methodology. In applying the IPRE loan transition matrix, firms should consider the binary effect of credit transitions on individual IPRE loans and the impact of name level concentration risks.

³⁴ Chapter IV, Section 2 of the Commission Delegated Regulation.

³⁵ https://eiopa.europa.eu/Publications/Guidelines/IM_Final_document_EN.pdf.

³⁶ Article 229 (g) of the Commission Delegated Regulations.

4.35 The PRA considers that an assumption that a firm can exercise an option triggered by a technical default (eg option to accelerate loan repayment upon covenant breach) in its internal model constitutes a future management action within the internal model. The PRA therefore expects firms to demonstrate how these assumptions meet the requirements set out in Article 236 of the Commission Delegated Regulation. In particular, if firms assume such actions in their SCR calculations then they should allow for both the benefit and associated costs of the actions within the SCR. Firms should also consider the consistency of assumptions made in respect of these actions in valuing assets and technical provisions pre and post stress.

Stressed fundamental spread on IPRE loans

4.36 The PRA expects firms to identify the risks pertaining to their IPRE loans that would be retained in stress, and ensure that these are appropriately reflected in the calculation of the fundamental spread (FS) in stressed conditions where the MA portfolio includes IPRE loans. When calculating the stressed FS on IPRE loans, firms should consider the risks noted in SS8/18. Specific additional considerations relevant to IPRE loans are set out in this section.

4.37 The PRA expects firms to include all relevant retained credit risks within the calculation of the stressed FS for the purposes of determining the SCR. For IPRE loans, this should draw on the risk identification exercise and it is expected that firms consider at least the following areas:

- (i) cash-flow predictability;
- (ii) loan characteristics, eg refinancing risk;
- (iii) concentration risk, which may be more material than in the case of corporate bond holdings; this should also consider the impact of future risks such as political and climate change risks on a concentrated portfolio;
- (iv) basis risk, which as a consequence of the heterogeneity of these assets, may be more material than in the case of corporate bond holdings;
- (v) liquidity risk;³⁷ and
- (vi) idiosyncratic risks.

4.38 Within the calculation of the stressed FS on IPRE loans, the PRA also expects firms to consider risks that may impact the value of collateral and security underpinning the loan and therefore the potential recoveries that may be achieved upon default. Of primary importance is property risk and the ability to realise recoveries within a timely manner. Particular components of property risk expected to be included within the stressed FS calculation include:

- (i) stressed property values and valuation risks;
- (ii) characteristics of the property, eg location, design and condition;

³⁷ This refers to the risk of poor liquidity management within the SPV and the financial impact of illiquidity of collateral, unless adequately mitigated.

- (iii) property market conditions, eg supply vs demand for the properties; and
- (iv) the ability to sell or refinance the underlying property in stress, the time required to complete the sale, and potential haircuts to value to achieve a sale in a timely manner.

4.39 In order to allow for these risks, the PRA would ordinarily expect that firms would not assume a zero loss given default (LGD) on IPRE loans, if the modelling of LGD is applicable to a firm's methodology.

4.40 When modelling changes to the FS within the calculation of the SCR, firms should consider the rate of recovery against the collateral and security upon default that is achievable within the two month window in order to restore compliance with the relevant eligibility conditions as set out in the Solvency 2 Regulation 2015, regulation 42(3). The assessment of recovery rate should also allow for the firm's assumptions about its workout process, eg the assumed recovery amounts in stress, costs of recoveries and timing of recoveries all taking into account the illiquid nature of IPRE lending.

4.41 Within the stressed FS calculation for IPRE loans, firms should consider the impact of a default (eg failure for the borrower to meet interest payments or full repayment at maturity as a minimum).

4.42 The PRA expects that the stressed FS calibration captures the risks retained by the firm, including both the risk of a default event given the asset's current credit quality and the risk of an increase in the likelihood of a default event (ie downgrade in credit quality), as per the firm's definition of a default event.

4.43 Firms should continue to compare the levels of downgrades and defaults in their internal models against those seen historically for other relevant credit risky assets. In the case of IPRE loans, firms should specifically look at historic periods of poor commercial property experience. Firms should be able to justify any assumptions that appear materially weak compared to historic experience.

4.44 Firms may alternatively choose to assign stressed FS assumptions for IPRE loans by, for example, applying the stresses applied for corporate bonds of the same duration, rating and sector. The PRA expects, however, that firms justify why this approach is appropriate and how it reflects all of the relevant risks for IPRE loans. In particular, firms should justify why the risks included in their corporate bond methodology and calibration adequately allow for the risk identified in the IPRE loan risk identification exercise, and that the corresponding SCR is appropriate for IPRE loan exposures.

4.45 Firms may choose to assign stressed FS assumptions for IPRE loans using a stressed credit rating assessment, either directly or indirectly. In this case, the PRA expects firms to consider how the credit rating methodology, including any expert judgements, would apply in practice under stressed conditions. This should include considering the key quantitative and qualitative factors that drive the credit rating.

4.46 The PRA expects firms to maintain a floor (ie a minimum level of FS) based on long term observations of the risk on IPRE lending as part of the modelling of stressed FS in line with expectations set out in paragraph 4.30 of SS8/18. As a minimum, the PRA expects firms to reapply the methodology and calibration as set out in Article 77c of the Solvency II Directive for the floor.

4.47 For the purposes of determining the technical provisions, the base FS calibrations used in the MA calculation are published by EIOPA in technical information produced in accordance with Article 77e of the Solvency II Directive 2009. If the stressed FS for IPRE loans have been derived based on an economic view that results in a different base FS compared to the base FS published by EIOPA, the

PRA expects firms to consider the materiality of this difference and the implications of this for the calculation of the SCR. The SCR should reflect the increase in FS attributed to the risks retained in stress.

The MA qualifying conditions in stress

4.48 Considerations relevant to rebalancing of the MA portfolio within the SCR calculation are set out in paragraphs 5.5 to 5.14 of SS8/18. Specific considerations relating to rebalancing of IPRE loans are set out in this section.

4.49 Firms may choose to assume that rebalancing of the MA portfolio may be achieved by injecting existing IPRE loans from elsewhere in the business outside of the MA portfolio. In this case, the PRA expects firms to demonstrate that such assets are MA-eligible and have the same features as the assets already in the MA portfolio. The PRA further expects that such an assessment of eligibility and same features may constitute a material exercise, due to the relatively complex and bespoke nature of IPRE loans.

4.50 The PRA would not usually expect firms to assume that IPRE loans may be sold to fund the purchase of assets required to rebalance the MA portfolio in stress, owing to the potential timescale required to achieve such a sale. If a firm is reliant on such an assumption then the PRA expects that strong evidence would be provided to show that the firm has considered, at least:

- (i) whether a sale would be allowable under the original terms of the loan;
- (ii) the likely counterparties to the sale and the impact that the stress event may have on the appetite to engage;
- (iii) the likely timescale in which a sale or sales could be achieved, substantiated by market data if possible; and
- (iv) the value at which a sale could be achieved, including any allowance for haircuts, substantiated by market data if possible.

4.51 The PRA expects firms would not place reliance on the ability to source new IPRE loans to address a mismatch in the MA portfolio in stress due to the uncertainty around the pipeline and market conditions in stressed conditions.

Validation

4.52 The PRA expects firms' validation teams to carefully consider the challenges of developing the methodology and calibration of IPRE loans based on limited data, including the need to robustly validate the use of proxy datasets (eg CMBS data) and expert judgements. The validation should be mindful of how the firm will demonstrate that the capital requirements resulting from the internal model are appropriate given the potentially greater level of uncertainty of the SCR calculated by the model.³⁸ In particular, the validation should review all the key expert judgements made in the calibration process, the range of alternative judgements available, and quantify the impact of changes in these judgements.

³⁸ Article 124 (2) of the Commission Delegated Regulation.

4.53 The PRA expects firms with IPRE loans within an MA portfolio to consider, as part of the validation of the stressed MA allowed for within the SCR, a comparison of the stressed FS on IPRE loans with a mechanistic reapplication of the methodology used to assign the FS for the purposes of calculating the technical provisions. This assessment should consider how the CQS of the IPRE loan could change in stress. As set out in paragraph 2.5 of SS8/18, the PRA considers that a 'mechanistic approach' based on re-application of the approach used to calculate TPs is unlikely to take into account all quantifiable risks to which a firm is exposed. The PRA would therefore expect a firm's stressed FS to exceed that implied by a mechanistic re-application of the approach used to derive the FS used to calculate the TPs.

4.54 The PRA expects firms to ensure that the MA qualifying conditions in stress can be met in order to support the level of MA on IPRE loans allowed for in the SCR calculation given the risks to which the portfolio is exposed and the interaction between these risks. This expectation also applies in the case of firms using a less bespoke modelling approach to model risks on IPRE loans.

4.55 In validating the appropriateness of the calibration, the PRA expects firms should conduct back-testing of its calibration for IPRE lending against its own loss experience and appropriate historical data to the extent that data are reasonably available.

4.56 The PRA recognises that industry benchmarking surveys comparing the calibration and treatment of IPRE loans by firms may be a useful validation tool. However, firms should consider the extent to which such comparisons are affected by differences in the risk profile of its holdings due to the bespoke nature of IPRE loans, and differences in the materiality of these holdings which may justify the use of less sophisticated models. Firms should therefore not place material reliance on such benchmarking unless they are sure that comparisons are made on a like-for-like basis.