BANK OF ENGLAND
PRUDENTIAL REGULATION AUTHORITY

Consultation Paper | CP7/19

# Solvency II: Equity release mortgages - Part 2

April 2019

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Responses are requested by Wednesday 3 July 2019.

**Please address any comments or enquiries to:**

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## Contents

# 1 Overview

1.1 In this consultation paper (CP), the Prudential Regulation Authority (PRA) proposes amendments to its expectations in respect of firms investing in equity release mortgage (ERM) portfolios, as set out in Chapter 3 of Supervisory Statement (SS) 3/17 'Solvency II: Matching adjustment – illiquid unrated assets and equity release mortgages'.[1]

1.2 This CP is relevant to insurance and reinsurance companies holding ERMs.

## Background

1.3 SS3/17 sets out a test (the Effective Value Test or 'the EVT') to help the PRA determine whether firms appear to be taking inappropriately large matching adjustment (MA) benefit from restructured ERMs held within MA portfolios.

1.4 The PRA revised SS3/17 in December 2018 to clarify its expectations in respect of how firms could carry out the EVT, with the policy to take effect from 31 December 2019.

1.5 Policy Statement (PS) 31/18 issued alongside the revised SS3/17 noted that the PRA would consult in 2019 on additional proposals as follows:

(i) When and how the PRA would periodically review and publish updated values for the property volatility and deferment rate parameters to be used in the EVT. In particular, the PRA is now consulting on proposals to adjust the deferment rate following a material change in real interest rates, in part with the aim of reducing the sensitivity of the EVT to changes in nominal risk-free rates.

(ii) Where firms include assets other than ERMs in the special purpose vehicle (SPV) used to restructure ERM loans, how those other assets should be allowed for in the EVT.

(iii) The frequency with which the PRA would expect firms to assess the EVT.

(iv) Principles for how the PRA would assess the approaches firms could use to model the risks associated with ERMs in their internal models against the Solvency II tests and standards, including whether and how the PRA would expect firms to apply the EVT in stress, taking account of the PRA's proposals for how it would vary the deferment rate.

1.6 This CP sets out those proposals. The PRA is also consulting on principles to clarify how the loan value plus accrued interest input to the EVT (denoted K in paragraph 3.20 of SS3/17) would reflect circumstances (such as drawdown contracts) where the ultimate amount due at exit is uncertain.

## Purpose

1.7 The purpose of the proposals is to provide additional clarity on how the PRA expects firms to conduct the EVT.

[1] Readers are referred to the version of SS3/17 published in December 2018 that takes effect from 31 December 2019 available at https://www.bankofengland.co.uk/prudential-regulation/publication/2017/solvency-2-matching-adjustment-illiquid-unrated-assets-and-equity-release-mortgages-ss.

## Implementation

1.8 The proposed implementation date for the proposals in this CP is Tuesday 31 December 2019.

## Responses and next steps

1.9 This consultation closes on Wednesday 3 July 2019. The PRA invites feedback on the proposals set out in this consultation. Please address any comments or enquiries to CP7_19@bankofengland.co.uk.

1.10 The proposals set out in this CP have been designed in the context of the current UK and EU regulatory framework. The PRA has assessed that the proposals will not be affected in the event that the UK leaves the EU with no implementation period in place.

# 2 Proposals

2.1 This chapter explains the PRA's proposals for:

- reviewing and updating the deferment rate and volatility parameters;
- the treatment of assets other than ERMs held by the SPV used to restructure ERMs;
- the treatment of ERM loans where the amount of principal and/or accrued interest at a given future date is uncertain;
- the frequency with which EVT would be assessed; and
- principles for assessing ERM risks in internal model Solvency Capital Requirements (SCRs).

2.2 The draft amendments to Chapter 3 of SS3/17 are set out in the Appendix.

## Reviewing and updating the deferment rate and volatility parameters

### Periodic reviews

2.3 The PRA proposes to establish a framework for reviewing the deferment rate and volatility parameters used in the EVT. Firms should note, however, that the purpose of this framework is not to deliver a mechanistic output but to set out the factors that are expected to inform the PRA's supervisory judgement as to whether a change is warranted. The PRA considers this approach would best ensure the EVT continues to meet its purpose.

2.4 The PRA proposes to review the EVT deferment rate parameter twice per year, in March and September. To avoid spurious precision, the PRA would not expect to publish an updated value of the deferment rate that results in it changing in absolute terms by under 0.5 percentage points. The PRA would increase (reduce) the deferment rate if the review shows there has been a material increase (reduction) in long-term real risk-free interest rates since the last update. Other than for phasing in as discussed in paragraph 2.10 below, the deferment rate will always remain positive, as a zero or negative value would be contrary to Principle III of SS3/17.

2.5 The proposal to review the deferment rate following a material change in real risk-free interest rates is aimed at reducing the sensitivity of the EVT to changes in nominal risk-free rates, based on the following reasoning:

- At a given term, the nominal risk-free rate less the real risk-free rate can be considered to be the market view of implied inflation. Thus nominal risk-free rates embody two sources of variability, from real risk-free rates and from market implied inflation.
- The forward rate is a major determinant of no negative equity guarantee (NNEG) cash flows under the EVT and is defined as the nominal risk-free rate less the deferment rate. Under the proposal to take account of movements in real risk-free rates when setting the deferment rate, much of the variability from real risk-free rates would be removed from the forward rate, and thus from the determination of NNEG cash flows under the EVT.
- As a result of taking long-term real risk-free rates into account when setting the deferment rate, the sensitivity of NNEG cash flows under the EVT would relate primarily to changes in the market's view of long-term inflation, rather than changes in long-term

nominal risk-free rates. This would reduce the sensitivity of NNEG cash flows to nominal risk-free rates.

2.6 The volatility parameter is a long-term view of the behaviour of individual property prices rather than being directly linked to market conditions at a point in time. The PRA proposes to review the volatility parameter within the framework once a year, by the end of September, to ensure that it remains appropriate, having regard to new data on property price returns and relevant advances in techniques for estimating volatility for ERMs. Again to avoid spurious precision, the PRA does not expect to publish an updated value of the volatility parameter that would lead to it changing in absolute terms by under 1 percentage point.

2.7 In accordance with the proposal in paragraph 2.4 above to review the deferment rate and volatility parameters, the formula in paragraph 3.20 of SS3/17 would be amended to remove the values of 1% and 13% respectively and to include a direction to use the published values.

### Ad hoc reviews

2.8 In addition to the regular review cycle outlined above, the PRA proposes to carry out ad hoc reviews of the two parameters within its framework in any other circumstances in which, in the PRA's judgement, the parameters may need to be updated to meet the aims and objectives of the EVT, for example if there is evidence to suggest a material shift in the level of long-term real risk-free interest rates since the most recent review. The PRA would consult further in the event that it considered it appropriate to revise the framework itself.

### Publication of deferment rate and volatility parameters

2.9 The PRA proposes to publish the values of the deferment rate and volatility parameters on its website[2] with a rationale (where necessary) at each publication setting out why the values have changed or have remained at their prior values, as the case may be. The values would be first published on or before 30 September 2019. After the initial publication, any changes to the prior values of the parameters would be published on the website at the same address. The PRA intends to publish updated parameters in March and September each year.

### Phasing-in period

2.10 Firms that wish to make use of the phasing-in period established in paragraph 3.21 of SS3/17 may use a value of 0% for the deferment rate parameter and are not expected to use the published value until 31 December 2021. Firms may also choose to phase in over a shorter period. Firms that do not wish to make use of the two year phasing-in period would be expected to use the published value for the deferment rate in assessing the EVT from 31 December 2019. The PRA proposes that all firms should use the published volatility parameter when assessing the EVT from 31 December 2019, whether or not they are phasing in the deferment rate parameter. By 31 December 2021 there will be a record of two years of published parameters.

## Treatment of assets other than ERMs held by the SPV

2.11 The PRA proposes that firms should take assets other than ERMs held by the SPV into account when assessing the EVT only if the other assets are held for a purpose that supports the restructuring of the ERMs, for example to improve the credit quality of the restructured ERM notes, or to assist with risk or liquidity management.

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2 Details will be provided when the policy is finalised.

2.12 The PRA proposes that firms with an SPV that holds assets other than ERMs should, for the purposes of the EVT, add the balance sheet value of these assets, calculated in accordance with the PRA Rulebook, to the economic value of ERM cash flows. The balance sheet value of the other assets should equally be recognised in the Effective Value and apportioned between the balance sheet values of the notes. In particular, firms should allow for the impact of the other assets on the security of the senior tranches, and ensure that the valuation, spread and mapped credit quality step (CQS) of the senior tranches reflects the presence of the other assets in the SPV. The PRA considers it would be difficult to justify an outcome in which the presence of a material value of other assets had no effect on the value or credit quality of the senior tranches and an assumption that the value of the other assets was allocated in full to the junior tranche is unlikely to be credible.

2.13 The aim of this proposal is for assets other than ERMs to be treated consistently on both the economic and effective sides of the EVT, and for the resulting Effective Value to reflect the impact of the other assets on the notes appropriately. Omitting the value of other assets from both sides of the EVT does not allow for any beneficial impact of the other assets on the senior note spreads or credit quality and is unlikely to achieve the aims of these proposals.

2.14 The PRA proposes that firms should allow for any basis and counterparty risk associated with assets other than ERMs; for example a derivative contract that hedges movements in a residential property index would be subject to basis risk arising from idiosyncratic property movements. Further, the PRA proposes that any costs associated with the other assets should be incorporated into the EVT, for example the benefit of a liquidity facility should only be taken into account in the credit ratings of the MA-eligible notes as part of determining Effective Value if the commitment fees associated with that facility are also allowed for.

## Uncertain loan principal or accrued interest

2.15 One of the inputs to the EVT is the loan principal plus accrued interest, denoted K in paragraph 3.21 of SS3/17. For a lump sum ERM where the borrower receives a single principal amount and interest rolls up, it is straightforward to calculate K at each future date. However, there are ERM products where one or both of the principal and interest are uncertain, for example loans where borrowers may take further advances (‘drawdowns’) at any time with comparatively few restrictions, or where borrowers may pay some or all of the interest accruing, subject to an option to cease such interest payments. This section sets out the PRA’s proposals for how the loan principal plus accrued interest should be calculated in cases where one or both elements are uncertain.

2.16 Given the wide range of potential options, terms and conditions for ERM loans, the PRA proposes an overarching principle that the economic value at a particular assessment date should not recognise future principal amounts (ie amounts that have not been lent at the assessment date), or the interest accruing thereon, unless both the timing and amounts of the future principal are known and certain in advance, and relate to contracts which have been effected on or before the assessment date.

2.17 The PRA also proposes that the assessment of NNEG risk on existing lending should include the possibility of future lending. Future additional advances that are secured against the same property may increase the overall risk that the NNEG bites, and the PRA proposes that this risk should be recognised. The PRA therefore proposes that firms should use best-estimate views of future borrower behaviour when assessing the risks of future lending to existing lending. The PRA also proposes that firms should recognise risks to principal or interest beyond best-estimate expectations in the allowance for other risks discussed in paragraph 3.23 of SS3/17.

**Example – Impact of future lending**

For the purpose of illustration, consider an example in which borrowers whose property is valued at £200,000 are granted a loan facility of £50,000 from which they take an initial advance of £20,000. The overarching principle would be that the undrawn facility of £30,000 would not contribute to economic or effective value unless and until further lending is certain to take place. In this example, the initial £20,000 advance is restructured alongside other ERMs into an initial note and subsequently another advance of £18,000 takes place which is restructured into a second note. The two advances are both secured on the same property and so the presence of each impacts on the other, in a way that depends on the legal arrangements pertaining to the two notes. If the legal basis of the notes is such that both advances have security over the underlying property on a pari passu basis, then the allocation of NNEG risk between the two notes will be different compared to the case where the second note has rights that are subordinated to the first note's interest in the underlying property.

In the pari passu case, the first note is exposed to additional future NNEG risk arising from the possibility of further lending even where this lending has not yet taken place, because all the lending is secured on the same underlying property. This risk is retained by the firm and so the PRA would expect it to be allowed for in the calculation of economic value. This may be achieved where firms notionally reduce the value of the property to allow for the risk to the first advance arising from future advances. In the example given, the loan to value (LTV) if the full loan facility were drawn upon would be 25%, and a notional property value based on an LTV of 25% would be £80,000 to be consistent with the advance of £20,000. Similarly the second advance of £18,000 would have a notional property value of £72,000, and the remaining undrawn facility of £12,000 would correspond to the remaining property value of £48,000. Using these notional property values (updated appropriately from time to time) would ensure both that the underlying property value was not double-counted on actual lending, and that the retained risk arising from further advances was also allowed for. The PRA considers this approach to be good practice, although it acknowledges that other approaches may be used which could be consistent with the principles underlying the EVT.

In the subordinated case, the NNEG risk borne by the first note would be separated from the NNEG risk borne by the second. In effect, the second advance would have the substance of a second charge over the property as far as the second note is concerned, albeit from the borrowers' perspective there would be a single total advance of £38,000 in the example given. However, as further advances are taken, (assuming further subordination) it is less clear that the notes containing later advances would meet the expectations in paragraph 2.56 of SS7/18, because the later advances would be increasingly exposed to NNEG risk.

2.18 Given the breadth of possibilities regarding loan arrangements and structuring, the PRA proposes that firms should discuss with their supervisor their approach to NNEG risk where there are potentially multiple advances that are not fixed in time or amount. The PRA understands that firms generally include contractual variation terms which purport to allow a firm to cease providing future advances in certain circumstances (for example, that they are dependent on current lending criteria). The PRA proposes that firms should not assume that they can rely on such terms when calculating their allowance for the risks of future lending unless they were able to justify that these terms were both: (a) consistent with their business plans with due consideration given to the franchise risk which could arise from such actions; and (b) enforceable, having considered carefully any legal and conduct requirements and expectations, including how a court might view these terms, specifically their fairness under the Unfair Terms in Consumer Contracts Regulations 1999 (for contracts entered into prior to October 2015) and the Consumer Rights Act 2015 (for contracts entered into subsequently).

2.19 The draft changes to SS3/17 in the Appendix set out the proposed approach to be taken in a number of special cases. It is not practicable to consider every conceivable case, and so the PRA proposes that firms should discuss their approach with their supervisor where they wish to restructure ERM products with features giving rise to uncertain loan principal and interest that are not otherwise covered in SS3/17.

## Frequency of EVT assessment

2.20 The PRA proposes that firms would be expected to conduct the EVT in the following circumstances:

- When restructured ERM notes are established or amended. Testing at establishment seeks to assess compliance with Solvency II requirements relating to the calculation of the fundamental spread and thus the MA, and testing at amendment checks that modifications do not undermine the initial assessment. The PRA considers this to be a natural accompaniment to the credit rating reassessments that firms may perform at note amendment.

- When appropriate to support the supervisory review process.[3] To align with the reporting cycle, the PRA considers that this should be at least annually, at firms' financial year end dates. As part of the Supervisory Review Process, the PRA will take into account the results of any EVT. Firms with exposures to restructured ERMs that are more material in proportion to the value of the assets in the MA portfolio, or firms that the PRA judges to be more at risk of deriving inappropriately large MA benefit from restructured ERMs (arising, for example, from prior EVT results), would be expected to carry out testing more frequently, and should discuss this with their supervisor. The EVT may also be of benefit to firms as part of validating technical provisions valued with the MA, in accordance with Article 264 of the Solvency II Commission Delegated Regulation (EU) 2015/35.

- When recalculating the transitional measure on technical provisions (TMTP) whether at a regular two-year recalculation point or as a result of a relevant change in risk profile. The TMTP is, in part, a function of the amount of MA benefit derived from restructured ERMs and assessing the EVT would help to provide assurance that the amount of TMTP benefit derived is calculated correctly.

- Where a firm has reason to believe that the result of the EVT would show that it would no longer be met, or on request by their supervisor, for example where the PRA has updated the parameters outside the usual March and September cycle. The aim in all cases is to achieve timely assessment of issues potentially affecting the amount of MA benefit arising from restructured ERMs.

2.21 The PRA proposes that firms should communicate the results of the EVT assessment to their supervisor promptly, and as soon as possible in the event that the EVT result indicates that an inappropriately large amount of MA benefit may be derived from restructured ERMs.

3 See 'The PRA's approach to insurance supervision' available at https://www.bankofengland.co.uk/prudential-regulation/publication/2018/pra-approach-documents-2018 and Article 36 of Directive 2009/138/EC.

## Principles for assessing internal model SCRs

2.22 SS8/18[4] sets out expectations for modelling the MA in stress for a general portfolio of eligible assets and liabilities. These expectations also apply to restructured ERMs. In particular, paragraph 6.8 of SS8/18 sets out the PRA's expectation that firms will validate the level of MA benefit assumed in the SCR calculation using a methodology that differs from the primary methodology used to calibrate the stressed MA.

2.23 Pursuant to the expectation in SS8/18, in assessing internal model applications (including for model changes) regarding the use of validation techniques to provide assurance that the amount of MA benefit in stress is not over-stated, the PRA proposes to give further supervisory guidance to the effect that it considers a test based on an 'EVT in stress' is an appropriate validation technique to use. Firms may wish to add an EVT in stress to their regular suite of validation tests.

2.24 The EVT in stress would compare the stressed economic value of ERMs and other assets with the stressed Effective Value of restructured ERMs, having regard to changes in note spreads and mapped CQS. The PRA's proposal for an 'EVT in stress' as a validation technique is a natural analogue to using the EVT as a diagnostic test on the base balance sheet. The PRA considers that the comparison would give valuable insight into the behaviour of ERMs and notes in stressed conditions. The EVT in stress is intended to be part of the processes firms may use to meet the validation tests and standards,[5] and not to replace firms' primary methodologies or existing validation techniques, or to determine the internal model SCR. If the stressed EVT result showed that Effective Value was higher than economic value under stress the PRA would seek clarification from firms in the first instance, as is the case when other validation techniques indicate there may be an issue with the primary methodology.

2.25 In performing this comparison the PRA proposes that all the relevant inputs to the EVT, for example the deferment rate and the volatility parameter, should be stressed appropriately in a way that is consistent with the confidence level of 99.5% over a one-year period[6] for the SCR of the MA portfolio holding the restructured ERMs. The final part of the revised draft of Chapter 3 of SS3/17 sets out more detailed proposals in this area. In particular, the PRA proposes that firms should derive their own stresses to the deferment rate and volatility parameters. The PRA considers that it would be appropriate for firms to have regard to the linkage between the deferment rate parameter and real interest rates proposed in paragraph 2.4 above, and relevant historical data and prospective scenarios relating to property market downturns, both in the UK and internationally. Firms should also consider the risk that individual properties do not necessarily behave consistently with a diversified index of property prices, the dependency structure among risk factors, in particular between nominal risk-free interest rates and the deferment rate, and any management actions they may wish to take under stress.

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4 'Solvency II: Internal models - modelling of the matching adjustment', July 2018: https://www.bankofengland.co.uk/prudential-regulation/publication/2018/solvency-2-internal-models-modelling-of-the-matching-adjustment-ss.

5 The PRA's rules on validation tests and standards are set out in rule 14.1 of the Solvency Capital Requirement – Internal Models Part of the PRA Rulebook.

6 Rule 3.4 of the Solvency Capital Requirement – General Provisions Part of the PRA Rulebook.

# 3 The PRA's statutory obligations

3.1 The PRA is required by the Financial Services and Markets Act 2000 (FSMA) to consult when setting its general policies and practices.[7] In doing so, it is required to comply with several statutory and public law obligations. 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 policy is compatible with the PRA's duty to act in a way that advances its general objective,[8] insurance objective[9] (if applicable), and secondary competition objective;[10]
- an explanation of the PRA's reasons for believing that making the proposed policy is compatible with its duty to have regard to the regulatory principles;[11] and
- a statement as to whether the impact of the proposed policy will be significantly different to mutuals than to other persons.

3.2 The Prudential Regulation Committee (PRC) should have regard to aspects of the Government's economic policy as recommended by HM Treasury.[12]

3.3 The PRA is also required by the Equality Act 2010[13] 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

3.4 In respect of the base balance sheet, the proposals set out in this CP constitute an articulation of how firms may demonstrate compliance with Solvency II requirements. They are not intended to amend the fundamental policy behind the EVT framework, but rather refine and clarify the PRA's expectations relating to the EVT diagnostic tool in SS3/17. The EVT diagnostic tool, along with its calibration, is designed to help the PRA to evaluate whether the firms' regulatory balance sheets adequately reflect risks to which they are exposed in investing in certain assets, and hence to assist the PRA in determining whether firms are meeting existing requirements.

3.5 The proposed framework for reviewing and updating the calibration parameters has the benefit of reducing an economically unrealistic sensitivity to interest rate movements.

3.6 The proposed principles for assessing internal models for ERMs share with the industry a number of the considerations the PRA is likely to take into account in assessing internal model (change) applications against the Solvency II tests and standards for internal models, in particular the validation tests and standards, but does not impose additional requirements.

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7 Section 2L of Financial Services and Markets Act 2000 (FSMA).
8 Section 2B of FSMA.
9 Section 2C of FSMA.
10 Section 2H(1) of FSMA.
11 Section 2H(2) and 3B of FSMA.
12 Section 30B of the Bank of England Act 1998.
13 Section 149.

Therefore, while firms will incur ongoing costs of model development in order to maintain compliance with the Solvency II regime the PRA does not expect firms to incur any additional costs as a direct result of the proposals set out in the draft SS.

## Compatibility with the PRA's objectives

3.7 Taken together with the expectations in SS3/17, the proposals are intended to ensure that insurers investing in ERMs to match annuity liabilities can consistently assess whether they have appropriately allowed for the risks arising from those loans and have not understated their technical provisions, overstated their own funds, or understated their internal model SCRs. This helps advance the PRA's objectives of promoting the safety and soundness of firms and securing an appropriate degree of protection for policyholders.

3.8 The PRA also has a duty to facilitate effective competition as a secondary objective subordinate to its general safety and soundness and its policyholder protection objectives.[14] The PRA considers that the proposals may facilitate effective competition by ensuring that all insurers providing ERMs properly assess and price the risks, including by holding appropriate SCRs. In addition, by being transparent about the framework for updates to the calibration, and clarifying more technical aspects of the diagnostic test (such as the treatment of assets other than ERMs and principles to be followed when the ultimate amount of principal and interest is uncertain), the proposals would lead to more effective competition between firms due to a common and clear minimum basis for assessing ERM risks that operates appropriately in a range of market conditions and for different ERM product variants.

## Regulatory principles

3.9 In developing the proposals in this CP, the PRA has had regard to the regulatory principles.[15] Three of the principles are of particular relevance, as follows:

3.10 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 considers that any impact on firms that results from steps they take in response to the proposals is proportionate, having regard to the proposals being expectations that are subject to supervisory judgement (for example the proposed treatment of NNEG risk on new products with features depending on borrower behaviour), and considered in the context of the expected benefits from the increased confidence that firms are meeting existing requirements, and from the recognition that firms would assess the EVT at a frequency proportionate to the materiality of their exposures.

3.11 The desirability of sustainable growth in the economy of the UK. ERMs are a key investment asset for some insurers providing pension products. Those same insurers are also key providers of long-term investment to the UK economy. The PRA has tried to balance any potential short-term impact of the proposals on the supply of ERMs with the medium- and long-term risk of solvency to UK insurers.

3.12 The principle that the regulators should exercise their functions as transparently as possible. The proposals contained in this CP build on the 2016 discussion paper (DP), the CP

14 Section 2H(1) of FSMA.
15 Section 3B of FSMA.

and resulting policy in 2016 and 2017,[16] and the CP and resulting policy in 2018.[17] Chapter 2 of this CP sets out the PRA's reasoning for the proposals.

### Impact on Mutuals

3.13 The PRA considers that the impact of the proposals on mutuals is expected to be no different from the impact on other firms.

### HM Treasury recommendation letter

3.14 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.[18]

3.15 The aspects of the Government's economic policy most relevant to the proposals in this CP are: competition; growth; and better outcome for consumers.

3.16 These aspects have been considered in the 'compatibility with the PRA's objectives' and 'regulatory principles' sections above.

### Equality and diversity

3.17 The PRA is also required by the Equality Act 2010[19] ('EA 2010') to have due regard to the need to:

- eliminate discrimination, harassment, victimisation, and any other conduct that is prohibited by or under the EA 2010;
- advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it; and
- foster good relations between persons who share a relevant protected characteristic and persons who do not share it.

3.18 One of the purposes of this consultation is to allow the PRA to identify and assess the likely impacts of a decision on the proposals set out on persons who share protected characteristics and the PRA seeks views on the impact of the proposals on such groups. Of the protected characteristics in the EA 2010, the PRA has identified age as the most relevant protected characteristic. ERMs are seen by some as a key UK retirement product, typically only sold to those aged 55 and older. One possible result of the proposals could be that more risky ERMs (typically those sold to younger customers and with higher amounts lent relative to the price of the house providing collateral) might become less attractive as investment assets for insurers. Any such significant change in regulatory approach that had the effect of ERMs being less available or more expensive would have a disproportionate impact on that those aged

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16 DP1/16 'Equity release mortgages', CP48/16 'Solvency II: Matching adjustment – illiquid unrated assets and equity release mortgages, PS14/17 of the same name as CP48/16 and a link to SS3/17 are available at https://www.bankofengland.co.uk/prudential-regulation/publication/2016/equity-release-mortgages.

17 CP13/18 'Solvency II: Equity release mortgages', PS31/18 of the same name, and a link to the SS3/17 webpage hosting the updated SS3/17 are available at https://www.bankofengland.co.uk/prudential-regulation/publication/2018/solvency-ii-equity-release-mortgages.

18 Information about the PRC and the recommendations from HM Treasury are available on the Bank's website at www.bankofengland.co.uk/about/Pages/people/prapeople.aspx.

19 Section 149.

over 55. This consideration is balanced because a similar demographic group may have, or wish to buy, an annuity and would therefore have an interest in the prudential soundness of insurance companies providing annuities backed by ERM assets.

## Appendix: Draft amendments to Supervisory Statement 3/17 'Solvency II: matching adjustment – illiquid unrated assets and equity release mortgages'

This appendix proposes changes to Supervisory Statement (SS) 3/17. Underlining indicates proposed additions and striking through indicates proposed deletions. For ease of reference, Chapter 3 of the version of SS3/17 due to take effect on 31 December 2019[1] has been shown in its entirety, including text without proposed amendments. The first proposed amendment is the new paragraph 3.13A. Please note that footnote numbering will be corrected when the policy is finalised following consideration of responses to the consultation.

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# 3 Assessing the risks from equity release mortgages

3.1 This chapter sets out the PRA's approach to assessing the risks to which insurers that invest in ERMs are, directly or indirectly, exposed. The assessment covers the appropriateness of the amount of MA benefit arising from restructured ERM notes.

### Assessing the size of MA benefit from restructured ERM notes

3.1A The size of the MA benefit arising from restructured ERM notes depends on the:

- contractually-agreed cash flows of the notes and the value placed on those notes, which will determine their spread; and
- FS assigned to the notes. The FS must reflect the risks that the firm retains in relation to the cash flows of the notes, including default and downgrade risk. These, in turn, will be driven by the risks presented by the underlying assets.

3.2 ERMs are complex assets that often have embedded features such as a 'no negative equity guarantee' (NNEG) and no fixed maturity date. Restructuring them to produce MA-eligible notes with fixed cash flows adds a further layer of complexity. And there are typically no ECAI ratings or observable market prices for restructured notes on which firms and the PRA could place reliance.

3.3 As with any securitisation, there is a risk that the valuation and/or credit assessment of the MA-eligible notes is not aligned with their true risk profile, leading to a spread that is too high or an FS that does not reflect all of the risks retained by the firm. As noted in paragraph 2.6, the PRA will apply a higher supervisory intensity where it considers that there is a risk that the FS on internally-rated assets may be inappropriate. For restructured ERM notes, this increased oversight will include both an assessment of the quality of the firm's internal credit assessments (see paragraphs 2.10 to 2.17), and a verification that the risks retained by the firm as a result of the embedded NNEGs have been appropriately allowed for, as described below.

3.3A Where firms hold all of the tranches of a securitisation, the economic substance of their aggregate exposure remains the same regardless of the form of the securitisation.

[1] Published in December 2018 following PS31/18 'Solvency II: Equity release mortgages'. The SS is available at https://www.bankofengland.co.uk/prudential-regulation/publication/2017/solvency-2-matching-adjustment-illiquid-unrated-assets-and-equity-release-mortgages-ss.

Understanding the risks posed to a firm by holding ERMs, in particular the NNEG, and how these risks have been distributed between the various tranches of restructured notes (for example in the FS of MA eligible notes and the spread or valuation of the junior and senior notes), is an important part of ensuring that the MA does not arise from risks retained by the firm.

3.3B The approach to assessing NNEG risk set out under the heading 'The Effective Value Test' (the 'EVT') (below) is not the only method that could be used for these purposes but it is consistent with principles (ii) to (iv) in paragraph 3.8 and firms using this approach to demonstrate that they are not taking inappropriately large MA benefit from restructured ERM cash flows will meet the PRA's expectations for this assessment. Any alternative approaches that calculate property forward prices assuming property growth in excess of the risk-free rate while simultaneously discounting at the risk-free rate, without also making a sufficient allowance for the risk in the assumed property growth (as envisaged by principle (iv) in paragraph 3.8), are equivalent to assuming a negative deferment rate and would not meet principle (iii).

## Assessing the NNEG risk

3.4 The NNEG guarantees that the amount repayable by the borrower under the ERM need never exceed the market value of the property collateralising the loan at the repayment date. As such it is an important source of risk for an ERM. As part of the review of the amount of MA benefit being claimed by a firm, the PRA will assess the extent to which the contractual terms, value and rating of restructured notes properly reflect the underlying NNEG risks and the extent to which these underlying risks flow through to the notes held within the firm's MA portfolio (and as such are effectively retained by the firm for these purposes).[2] Compensation for these NNEG risks should not lead to an MA benefit. For example, assuming future house price growth in excess of risk-free rates should not lead to a lower valuation of the NNEG and hence higher MA, because firms are fully exposed to the risk that the excess house price growth will not be achieved.

3.5 Assets such as ERMs generally do not have directly observable market prices, and so nor do they have directly observable spreads. Instead a spread must be derived, having first determined both a fair value for the ERM using alternative valuation methods as well as assumptions about cash flows.

3.6 The presence of an NNEG will increase the derived spread on an ERM versus an equivalent loan without such a guarantee. It will also increase the amount of spread that should properly be attributed to risks retained by the firm.

3.7 When determining the fair value of an asset for the purposes of deriving its spread, it is important that any embedded guarantees are valued consistently with the rest of the asset (ie on fair value principles).[3] Otherwise, the component of the asset's spread that is assumed to represent compensation for the risks arising from the guarantee may be underestimated. Further, it is not sufficient simply to ensure that the value placed on the asset as a whole represents a fair value, since there could still be an incorrect attribution of value between the NNEG and the other components driving the valuation.

2 The focus on the NNEG should not be taken to imply that other risks (eg prepayment risk) are not considered material by the PRA and indeed Chapter 2 is clear that these other risks should all be considered in the internal credit assessment and FS mapping.

3 The PRA's rules on valuation are set out in rule 2.1 of the Valuation Part in the PRA Rulebook.

3.8 The PRA will assess the allowance made for the NNEG risk against its view of the underlying risks retained by the firm. This assessment will include the following four principles, which are explained in more detail below:

(i) securitisations where firms hold all tranches do not result in a reduction of risk to the firm;

(ii) the economic value of ERM cash flows cannot be greater than either the value of an equivalent loan without an NNEG or the present value of deferred possession of the property providing collateral;

(iii) the present value of deferred possession of property should be less than the value of immediate possession; and

(iv) the compensation for the risks retained by a firm as a result of the NNEG must comprise more than the best estimate cost of the NNEG.

3.9 [Deleted]

### (I) Securitisations where firms hold all tranches do not result in a reduction of risk to the firms

3.10 Where firms hold all of the tranches of a securitisation (as is generally the case for correctly restructured ERM portfolios), the economic substance of their aggregate exposure remains the same regardless of the form of the securitisation. Understanding the risks posed to a firm by the NNEG, and how these risks have been distributed between the various tranches of restructured notes, is an important part of ensuring that the FS appropriately reflects all of the NNEG risks that are retained by the firm in relation to the cash flows on the MA-eligible notes.

3.11 Some of the exposure to the risks posed by the NNEG will remain in the junior tranches outside of the MA portfolio. Nevertheless it is important to verify that the combination of the junior tranche values and the FS of the MA-eligible tranche(s) have appropriately covered all of the risks retained by a firm that holds the ERMs until maturity, including those that arise from the NNEG. For this reason the PRA will assess the overall 'Effective Value' of the restructured ERM against the components of the value of the un-restructured ERM (the 'economic value decomposition'), as described below and illustrated in Figure 1 below.

3.12 The 'Effective Value' of restructured ERMs is the total value of all tranches of the restructured ERMs on the asset side of the balance sheet, plus the MA benefit arising from the restructured ERMs on the liability side of the balance sheet. The right-hand side of Figure 1 illustrates the construction of Effective Value, alongside an illustration of one way in which the value of un-restructured ERMs can be made up. The total value of the securitisation tranches is illustrated as being somewhat lower than the value of the un-restructured ERMs, to reflect the frictional costs of restructuring, on the assumption that an equation of value holds.

3.13 On the left-hand side of Figure 1, the value of un-restructured ERMs has been illustratively decomposed into:

- the value of expected ERM cash flows prior to deductions (ie as a risk-free loan on expected decrements) (in blue),
- expenses (in red),
- NNEG (in red),

- any other adjustments (for example to allow for pre-payment risk) (in red).

For the purposes of this SS, the remainder (in green) is referred to as the economic value of ERM cash flows. The PRA expects the Effective Value to be less than this amount.[4] Calculation of the economic value should use methods and calibrations that are consistent with the other three principles.

3.13A Where the SPV holds assets other than ERMs, the PRA expects firms to take the value of these other assets into account when conducting the EVT only if they are held for a purpose that supports the restructuring of the ERMs, for example to improve the credit quality of the restructured ERM notes, or to assist with risk or liquidity management, subject to the following expectations:

(i) The balance sheet value of the other assets should be calculated in accordance with the PRA Rulebook and any other relevant requirements. This value of the other assets should be added to the economic value of ERMs.

(ii) When determining Effective Value, firms should allow for the balance sheet value of the other assets in valuing each tranche. In particular, firms should allow for the impact on the security of the senior tranches arising from the other assets, and ensure that the valuation, spread and mapped CQS of the senior tranches reflects the presence of the other assets in the SPV, having regard to paragraph 2.4 above. The PRA considers it would be difficult to demonstrate that the presence of a material value of other assets had no effect on the value or credit quality of the senior tranches and hence does not consider that it would be credible to assume that the value of the other assets was allocated in full to the junior tranche. The PRA expects firms to be able to justify any allocation to the junior tranche in relation to the design of its restructuring approach.

(iii) Firms should allow for any basis and counterparty risk associated with the other assets, for example any derivative or reinsurance contracts based on a property index are exposed to the basis risk of idiosyncratic property movements, as well as counterparty risk.

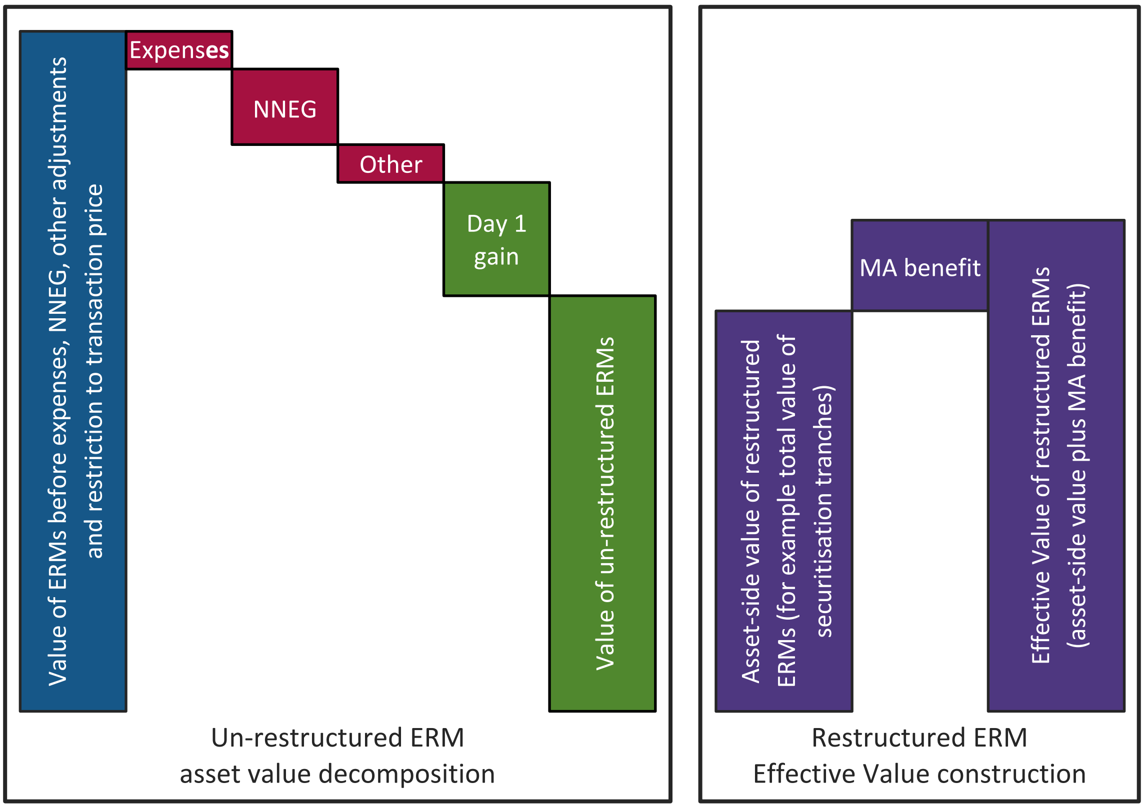
(iv) Firms should allow for relevant costs associated with the other assets, for example commitment fees associated with liquidity facilities used to support the credit ratings of the MA-eligible notes.

The PRA expects firms to be able to demonstrate that the value of other assets has been allowed for in economic value and Effective Value in accordance with (i) – (iv) above.

3.14 The~~is~~ EVT assessment will be carried out on a firm-by-firm basis to provide assurance that all of the risks to which the firm is exposed have been appropriately reflected, either in the value of the securitised assets or in the FS assigned to those assets in the MA portfolio.

4 The economic value has been broken down into the value of un-restructured ERMs and the restriction on the value to a transaction price, (labelled as 'Day 1 gain' in Figure 1 for brevity). The MA benefit has been illustrated in Figure 1 as partially offsetting the elimination of the Day 1 gain.

**Figure 1: Illustration of the construction of Effective Value**




### (II) The economic value of ERM cash flows cannot be greater than either the value of an equivalent loan without an NNEG or the present value of deferred possession of the property providing collateral

3.15 This concept was introduced as the first proposition of paragraph 4.9 of Discussion Paper (DP) 1/16.[1] It is derived from the following considerations:

(i) Given the choice between an ERM and an equivalent loan without an NNEG, a market participant would choose the latter, since either the guarantee is not exercised, in which case the ERM and the loan have the same payoff, or it is, in which case the ERM pays less.

(ii) Similarly, a market participant would prefer future possession of the property on exit to an ERM, given that the property will be of greater value than the ERM if the guarantee is not exercised, or the same value if it is.

### (III) The present value of deferred possession of a property should be less than the value of immediate possession

3.16 This statement is equivalent to the assertion that the deferment rate[2] for a property is positive. The rationale can be seen by comparing the value of two contracts, one giving

1 'Equity release mortgages' March 2016: see page 3 of 3 at https://www.bankofengland.co.uk/prudential-regulation/publication/2016/equity-release-mortgages.

immediate possession of the property, the other giving possession ('deferred possession') whenever the exit occurs. The only difference between these contracts is the value of foregone rights (eg to income or use of the property) during the deferment period. This value should be positive for the residential properties used as collateral for ERMs.

3.17 It is important to note that views on future property growth play no role in preferring one contract over the other. Investors in both contracts will receive the benefit of future property growth (or suffer any property depreciation) because they will own the property at the end of the deferment period. Hence expectations of future property growth are irrelevant for this statement.

### (IV) The compensation for the risks retained by a firm as a result of the NNEG must comprise more than the best estimate cost of the NNEG

3.18 As noted in paragraphs 3.10 and 3.11, the purpose of the assessment of Effective Value is to verify that all risks that have been retained by the firm on the assumption that it holds the ERMs until maturity have been appropriately reflected in the value assigned to the different tranches and the FS derived for those tranches in the MA portfolio. The NNEG component of the economic value decomposition should capture all of the risks to which the firm remains exposed as a result of giving this guarantee. The PRA's view is that the compensation for the risks that have been retained by the firm as a result of giving the NNEG will comprise more than the best estimate cost of the guarantee. This is consistent with the fact that the FS captures more than the expected cost of defaults: it also includes additional components for the cost of downgrades (eg calibrated as the cost of rebalancing the portfolio to maintain a certain probability of default), as well as a floor to allow for other sources of uncertainty in the cash flows. When considering the fair value of the ERMs, a rational investor would require compensation above and beyond the average outcome based on their best estimate assumptions, to reflect the risk of loss in adverse scenarios. The same analysis applies to securitised notes: the junior note should be held at fair value and the more a junior note is structured to absorb the risk from the NNEG (and other risks), the higher its spread should therefore be.

3.19 [Deleted]

### The Effective Value Test (the 'EVT')

3.20 Firms can demonstrate that the Effective Value is less than the economic value of ERM cash flows <u>(taking into account other assets held by the SPV in accordance with paragraph 3.13A)</u> using the following approach for calculating NNEG risk. Firms should calculate the allowance for NNEG risk for the portfolio of loans as the sum of a series of allowances for each ERM for each annual period during which ERM cash flows could mature, each allowance being multiplied by an exit probability appropriate to the annual period determined using best estimate assumptions for mortality, morbidity and pre-payment. Firms should calculate the allowance for each loan and period using the Black-Scholes option pricing formula shown below with the specified assumptions:

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2 By deferment rate, the PRA means a discount rate that applies to the spot price of an asset resulting in the deferment price. The deferment price is the price that would be agreed and settled today to take ownership of the asset at some point in the future; it differs from the forward price of an asset in that the forward price is also agreed today, but is settled in the future.

$$e^{-rT}\left[KN(-d_2) - Se^{(r-q)T}N(-d_1)\right]$$

where $d_1 = \frac{1}{\sigma\sqrt{T}}\left[ln\left(\frac{S}{K}\right) + \left(r - q + \frac{1}{2}\sigma^2\right)T\right]$ and $d_2 = d_1 - \sigma\sqrt{T}$

and N() is the standard Normal cumulative distribution function

- S = Current reasonable estimate at the balance sheet date of the value of the property providing collateral against the ERM,
- T = term to maturity as described above,
- K = loan principal and expected accrued interest at time T, calculated in accordance with the principles in paragraph 3.20A below,
- r = published Solvency II basic risk-free interest rate for maturity T, adjusted for use on a continuously-compounded basis,
- $\sigma$ = ~~13%~~ published volatility parameter,
- q = ~~1%~~ published deferment rate parameter.

3.20A For ERM loans where the value of K at time T is dependent on borrower behaviour relating to principal or interest, the PRA expects firms to follow the principles below:

(i) K should not include principal or the interest accruing thereon that is (a) projected to be lent after the date at which the EVT is conducted and (b) where the amount and timing of principal is at the borrower's discretion or otherwise not known in advance by the lender.

(ii) K should incorporate the principal and interest arising from a regular series of additional lending taking place after the date at which the EVT is conducted (a) where the amount and timing is known and certain in advance (other than any option to cease borrowing regular additional principal), and provided (b) that a best estimate of the rate at which borrowers cease to take additional borrowing is used.

(iii) In the case of loans where borrowers pay some or all of the interest due as it accrues, K should reflect the expected accrual of interest at time T, allowing on a best estimate basis for the rate at which borrowers take up options to cease or reduce the interest they pay.

(iv) Notwithstanding (i) above, the assessment of NNEG risk on existing lending should take account of any additional risk arising from future additional principal or interest on a best estimate basis, having regard to the legal mechanisms by which future additional principal is expected to be incorporated into existing or additional restructured ERM notes. This is a potentially complex area and the PRA encourages firms to discuss their approach with their supervisor. In determining their best estimates of future lending, firms should not take account of contractual variation terms that purport to allow the firm to curtail future lending in certain circumstances unless they can (a) justify that relying on such terms is consistent with their business plans with due consideration given to the franchise risk which could arise from such actions, and (b) demonstrate they have considered carefully any legal and conduct requirements and expectations, including how a court might view these terms.

(v) Where the value of K is uncertain in a way not otherwise covered by the principles above, the PRA expects firms to agree an appropriate approach to the calculation of K with their supervisor.

The PRA expects firms to be able to demonstrate that their calculation of K has been performed on a basis that is at least as prudent as that embodied in these principles.

3.21 ~~Based on the PRA's judgement and assessment of available empirical data, and recognising that there is uncertainty in estimating the deferment rate, the PRA considers that an assumption of less than 1% would be difficult to justify.~~ The PRA will expect firms to conduct the EVT from 31/12/2019, with a minimum value of q=0%. This is consistent with PRA policy as set out in principle (iii) of this SS. Subsequently, the PRA will expect firms to conduct the EVT with ~~q=1%~~ a minimum of the published value of q from 31/12/2021 at the latest, allowing a short phasing-in period for all firms that wish to use it.

3.21A The values of q and $\sigma$ will be published on the PRA's website at [insert link]. The PRA expects to review the value of q twice a year and to publish an updated value, or to confirm the prior value, by the end of March and September each year. The PRA expects to review and update or confirm the volatility parameter once per year, by the end of September. The initial review will take place by the end of September 2019. The PRA may publish updated values more frequently and at other times of the year when it considers it is appropriate to do so, taking into account market conditions. When reviewing the values of q and $\sigma$ the PRA will use the following framework:

- The PRA will use its judgement informed by a range of analysis to inform its decision on the values, rather than a purely mechanistic approach.

- For q, the PRA will have regard to movements in long-term real risk-free interest rates. In general, material increases in long-term real risk-free interest rates will lead to an increase in q, and conversely material reductions in long-term real risk-free interest rates will lead to a reduction in q, subject to the value of q remaining positive in line with Principle (III) above.

- For $\sigma$, the PRA will update its analyses to take account of any additional data on property price returns and relevant advances in techniques for estimating volatility.

- To avoid spurious precision, the PRA does not expect to publish an updated value of q or $\sigma$ that results in an absolute change of under 0.5 percentage points or 1.0 percentage points respectively.

- Where necessary, the PRA will set out a summary of its rationale for updating the parameters (or confirming their prior values) at the time of publication.

- The PRA will consult further in the event that it wishes to make substantive changes to this framework.

3.22 Where firms are unable to meet the EVT using the above approach and cannot offer appropriate and credible explanations (or alternatives that are consistent with principles (ii) to (iv), as explained in paragraph 3.3B above) this will be an indication that they may be deriving inappropriately large MA benefit from restructured ERMs. This could be because some or all of: the contractual terms of the ERM re-structure, valuation and spread of the restructured ERM notes or the rating (and hence CQS mapping) of the restructured ERM notes, do not adequately reflect the risk profile of the ERM cash flows that underpin the restructure.

In such circumstances, firms will need to consider whether to adjust one or more of those components in order to properly reflect that risk profile.

3.23 Figure 1 shows an allowance for 'other' risks in the decomposition of economic value of ERM cash flows. The PRA will not assess each firm's allowance for other risks using a single specified approach, because the size and nature of the allowance is likely to depend on the specific contractual terms and risk profile of each firm's ERM cash flows. However, the PRA will expect firms to demonstrate that they have made a realistic and credible allowance for other risks when assessing the economic value of ERM cash flows. In particular, the PRA expects firms to include an allowance for the likelihood and potential impact of early pre-payment of ERMs, and a further allowance for the uncertainties discussed in paragraph 3.20A above.

3.24 The PRA expects firms to conduct the EVT in the following circumstances:

(i) when restructured ERM notes are established or amended;

(ii) regularly in support of the Supervisory Review Process[3]: this should be at least annually at firms' financial year end dates. For firms where exposures to restructured ERMs (as a proportion of total assets in the MA portfolio) are more material, or if the PRA judges there to be an increased risk of the firm taking an inappropriately large MA benefit from restructured ERMs, firms may be expected to assess more frequently, as agreed with supervisors;

(iii) when recalculating the transitional measure on technical provisions, whether at a regular two-year recalculation point, or as a result of a relevant change in risk profile;

(iv) where a firm has reason to believe that the result of the EVT would show that it would no longer be met; and

(v) on request by their supervisor.

Firms may wish to conduct the EVT for their own purposes at any time.

3.25 The PRA expects firms to communicate the results and calculation of the EVT to their supervisor promptly, and as soon as possible in the event that the EVT result indicates that an inappropriately large amount of MA benefit may be derived from restructured ERMs.

## Assessing the internal model SCR for restructured ERMs

3.26 The PRA reminds firms of the PRA's expectations for modelling MA in stress in SS8/18,[4] in particular the expectations relating to using a different technique to the primary methodology when validating internal models for MA in paragraph 6.8 of SS8/18.

3.27 The PRA considers that assessing the EVT in stressed scenarios could be a relevant validation technique in relation to paragraph 6.8 of SS8/18. Specifically, assessing the EVT in stress entails considering:

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3 See 'The PRA's approach to insurance supervision' available at https://www.bankofengland.co.uk/prudential-regulation/publication/2018/pra-approach-documents-2018 and Article 36 of Directive 2009/138/EC.

4 'Solvency II: Internal models – modelling of the matching adjustment', July 2018: https://www.bankofengland.co.uk/prudential-regulation/publication/2018/solvency-2-internal-models-modelling-of-the-matching-adjustment-ss.

(i) the stressed economic value of ERMs;

(ii) the stressed value of other assets held by the SPV;

(iii) the stressed Effective Value of restructured ERMs (deriving from the stressed value and mapped CQS of the restructured ERM notes); and

(iv) the relationship between stressed economic and Effective Value.

The PRA considers reassessment of the EVT in stress, in particular the comparison of stressed economic and Effective Value in (iv) above, to be a helpful validation exercise that could contribute to firms meeting the Solvency II validation tests and standards. When assessing internal model applications, and firms' continued compliance with the tests and standards for internal model approval, the PRA will ask firms to apply a test based on the EVT in stress, to assist in providing assurance that the amount of MA in stress is not overstated. Firms may wish to consider adding an EVT in stress to their regular suite of validation tools.

3.28 Assessing the EVT in stress is not intended to replace firms' existing primary approaches in their internal model methodologies for restructured ERMs. In particular, the PRA expects firms to follow the five-step framework set out in Chapter 3 of SS8/18, part of which entails applying appropriate stresses to firms' valuation methodologies for restructured ERMs.

3.29 The PRA will ask firms to apply a test based on the EVT in stress as a validation technique from 31 December 2021 at the latest, ie when the phasing-in period in paragraph 3.21 ends.

3.30 Firms assessing the EVT in stressed scenarios should consider the following principles:

(i) All the relevant inputs to the EVT should be stressed appropriately, including without limitation the value of other assets; the opening property value, having regard to the risk that individual properties do not necessarily perform in line with a diversified index; the risk-free rate; mortality, morbidity and prepayment assumptions; best-estimate assumptions used in the calculation of the principal and interest; the deferment rate; and the volatility parameter. After allowing for appropriate diversification effects, the stresses should be consistent with the confidence level of 99.5% over a 1-year period for the SCR of the MA portfolio holding the restructured ERMs.

(ii) The minimum deferment rate and volatility parameters for the EVT are set by the PRA using the framework in paragraph 3.21A from time to time. These parameters are designed to inform a diagnostic test on the base balance sheet. The PRA expects firms to engage with the principles underlying the EVT and the framework for reviewing the parameters as set out earlier in this chapter, and to derive their own stresses to the deferment rate and volatility parameters. In doing so, firms may wish to consider adverse historical environments and prospective scenarios for property prices, both in the UK and internationally, as well as the framework for the parameters in paragraph 3.21A above.

(iii) The deferment rate parameter of the EVT assessed on the base balance sheet has been set as a minimum view. Firms should therefore consider what the minimum view would be in stressed economic conditions, having regard to the levels of variables such as nominal and real interest rates, and property prices. A zero value for the deferment rate does not meet Principle III above, and so the PRA does not consider this to be a realistic or credible value when using the test to meet the intended purpose other than during the phasing-in period in paragraph 3.21 above.

(iv) Firms may wish to stress the inputs to the EVT in different ways depending on the design of their internal model. For example, firms could stress the risk-free rate r and the deferment rate q, or apply stresses to r and r-q. On the basis of the broad linkage between the deferment rate and real interest rates, firms may wish to consider changes in r-q as being broadly linked to implied inflation.

(v) Firms should consider carefully the dependency structure among all risk drivers used in deriving stresses to the EVT parameters, in particular between r and q (or r and r-q), and ensure that the stressed scenarios used in the application of the EVT as a validation technique are economically realistic.

(vi) Firms may wish to consider management actions to support the SPV under stress, for example injecting assets to support the credit quality of senior notes, or amending note cash flows. In respect of management actions, firms are reminded to consider carefully the relevant tests and standards as set out in Article 236 of the Delegated Regulation, and any implications for the MA eligibility of the restructured ERM notes or the MA portfolio as a whole.