BANK OF ENGLAND
PRUDENTIAL REGULATION
AUTHORITY

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Dear CEO

Solvency II: Equity release mortgages – Part 2

Today, we published a consultation[1] with proposals intended to provide greater clarity to firms on our expectations for conducting the Effective Value Test (EVT). The aim of the EVT is to help us determine whether insurers appear to be taking inappropriately large matching adjustment (MA) benefit from restructured equity release mortgages (ERMs) held within MA portfolios.

The proposals in the consultation respond to the following questions to clarify the operation of the EVT:

1. *When should insurers carry out the EVT?* We propose that firms would in general be expected to conduct the EVT assessment at least annually; when establishing or altering restructured ERM notes; and when recalculating the value of the transitional measure on technical provisions (TMTP).

2. *When will the PRA update the deferment rate and volatility parameters in the EVT*? We propose to conduct regular reviews of the parameters in the EVT. For deferment rates, we propose to reduce (increase) the deferment rate if real interest rates fall (rise) materially, in part with the aim of reducing the sensitivity of the EVT to changes in nominal interest rates. The resulting deferment rate would always remain positive. Any changes to these parameters would be published on the PRA's website in good time ahead of year-end calculations.

3. *How should firms treat suitable assets other than ERMs held in an SPV used to restructure ERM loans?* We propose that firms would be expected to reflect the value of these assets in both sides of the EVT, to allocate the value of these assets appropriately between notes, and to allow for the impact of this allocation on note spreads and the MA.

4. *How should firms treat ERMs with flexible advances and similar features?* Where the ERM loan principal plus accrued interest at any given future date is uncertain, we propose that firms should make an appropriate allowance for the impact of potential future borrower behaviour on the NNEG risk of existing lending.

We already expect[2] insurers to validate their internal model Solvency Capital Requirement (SCR) to provide assurance that the amount of MA benefit in stress is not over-stated. We are now consulting on a proposal that 'EVT in stress' is an appropriate test to use for this purpose in respect of restructured ERMs. In our view, it would help to demonstrate the adequacy of the calculated capital requirements. When performing this proposed validation, firms would adjust the key parameters of the EVT – such as house prices, the deferment rate and house price volatility – appropriately to reflect stressed conditions. For example, deferment rates might be expected to change following material changes in real interest rates.

Academic research into ERM valuation

I would also like to take this opportunity to welcome the research[3] into ERM valuation co-sponsored by the Institute and Faculty of Actuaries (IFoA) with the Association of British Insurers (ABI), and conducted by Professor Radu Tunaru of the University of Kent. We believe the research paper's advocacy of ERM valuation using risk-neutral techniques is clearly expressed and merits serious consideration by firms and

[1] Consultation Paper 7/19 'Solvency II: Equity release mortgages – Part 2' available at https://www.bankofengland.co.uk/prudential-regulation/publication/2019/solvency-ii-equity-release-mortgages-part-2.

[2] Chapter 6 of SS8/18 ' 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

[3] https://www.actuaries.org.uk/learn-and-develop/research-and-knowledge/actuarial-research-centre-arc/research-programmes/equity-release-mortgages-no-negative-equity-guarantee.

their auditors. This research contributes to a growing body of academic thinking on how to address the valuation challenges in ERMs. For example, a 2010 paper[4] referenced in our 2016 Discussion Paper on ERMs[5] put forward a similar approach.

Nonetheless, we think the IFoA/ABI research needs to be developed further before the approach could be generally adopted by firms for valuation of ERMs, and that it is too soon to draw conclusions about firms' existing valuation methodologies and assumptions on the basis of this research. The Appendix contains some examples of areas that we consider require further development.

Please share this letter with your board, and colleagues within your firm. We are requesting responses to our consultation by Wednesday 3 July. If you have any questions concerning the content of this letter, please get in touch with your usual supervisory contact.

Yours sincerely

[4] Li, Johnny Siu-Hang, et al. 'On Pricing and Hedging the No-Negative-Equity Guarantee in Equity Release Mechanisms.' The Journal of Risk and Insurance, vol. 77, no. 2, 2010, pp. 499–522. JSTOR, https://www.jstor.org/stable/40783169.

[5] DP1/16 'Equity release mortgages', March 2016: https://www.bankofengland.co.uk/prudential-regulation/publication/2016/equity-release-mortgages page 3 of 3.

Appendix: Areas for further development in the IFoA/ABI research

Below are some examples of issues where the PRA considers the research requires further development, framed as questions that boards might ask when considering ERM valuation.

- *Are the mathematical techniques used based on appropriate judgements whose strengths and weaknesses are clearly explained and accessible to challenge?*
  The research is based on two complex techniques, one to project property prices, and the other adapting the projected prices for risk-neutral valuation of the no-negative-equity-guarantee (NNEG). Firms could consider asking for sensitivity analysis on the choice of these techniques to understand whether different choices might lead to materially different NNEG values. Firms could also consider asking how much confidence can be placed in the model's calibration since the parameters of complex models are generally more difficult to estimate with high confidence and are also more difficult to interpret and validate.

- *How does the valuation approach allow for individual property risk?*
  The research does not consider individual property risk and only examines the statistical behaviour of property indices. ERMs are written on individual properties, which in general behave differently to a property index. This is not a theoretical risk: the PRA is aware of a growing population of cases where ERMs have expired in negative equity as a result of individual factors, despite the significant increases in house price index levels since these ERMs were originated. The PRA expects firms to monitor and manage individual property risk, and take account of it in their valuation approaches and internal assessments of MA benefit.

- *Have appropriate data been chosen to calibrate the model's parameters?*
  The research is based on data from 1991. Firms could consider how sensitive the NNEG results are to the choice of data. ERMs written today are likely to remain on balance sheets for several decades. Data covering a longer period and wider range of economic conditions are available, for example back to the 1970s and 1950s. The PRA expects firms to satisfy themselves that the data selected are appropriate to the risk being modelled and that they are sufficiently complete such that trends and other long-term behaviour in the underlying risks can be identified.

- *Have other financially significant judgements been identified and challenged appropriately?*
  One of the most financially significant parameters is the deferment rate, which the research estimates by considering rental yields. Several commentators have already challenged the research's judgement to multiply the rental yield by a factor (currently 20%) representing the proportion of properties rented out – to its credit, the research highlights a challenge to this judgement made by an academic reviewer. The PRA's own view is that the challenges are well-founded, the justification for the 20% factor is not persuasive, and that it is necessary to consider the benefits of owner-occupation on properties that are not rented out (such as those on which ERMs are written).