

Bank of England PRA

SS5/24 – Funded reinsurance

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1: Introduction

1.1 This supervisory statement (SS) sets out the PRA's expectations in respect of UK Solvency II firms that are life insurers ('firms') entering into or holding funded reinsurance arrangements as cedants. Funded reinsurance is ~~a form of collateralised quota share reinsurance contract which transfers part or all of the asset and liability risks associated with a portfolio of annuities to a counterparty~~ as defined by the Glossary Part of the PRA Rulebook.¹

1.2 The PRA recognises that reinsurance is an important part of risk management. However, in the context of funded reinsurance, the PRA's concern is that counterparty risks may be underestimated as a result of the risk profile of the counterparties, the complexities of the arrangements, and the uncertainty around the effectiveness of management actions in stress.

1.3 The PRA recognises that funded reinsurance arrangements can be used by firms as part of a diversified asset strategy. However the PRA considers that there are increased risks in connection with funded reinsurance, including from a systematic use of funded reinsurance as an integral part of a firm's business model or from the use of more complex arrangements where it may be more difficult for firms to assess the full extent of risks involved.

1.4 In this SS, the PRA therefore builds on existing requirements and expectations that apply in respect of firms' reinsurance arrangements by setting out additional specific expectations in relation to funded reinsurance arrangements to mitigate the risks arising from these arrangements. For the avoidance of doubt the expectations in this SS supplement relevant requirements (including under the UK Solvency 2 framework) and other existing PRA expectations that apply to firms in relation to their outwards reinsurance arrangements, but do not modify or replace any relevant requirement or other existing PRA expectation.

1.5 The PRA understands that through a thorough assessment of the risks arising from their counterparties and collateral exposures, firms may identify some diversification benefits from their funded reinsurance portfolios which result in lower solvency capital requirements or make higher investment limits appropriate. These may include diversification between the cedant risk profile and the counterparty's risk profile, diversification between the collateral portfolio and the counterparty's asset portfolio, and diversification between the collateral portfolio and the cedant's asset portfolio. Conversely these transactions may also generate material increased risks and a heightened level of uncertainty of risk in stress, for example by impacting the collateral quality, liability valuation, risk of contract recapture, and risk of

¹ This is often referred to as asset intensive reinsurance, asset backed reinsurance, and/or annuity quota share reinsurance.

multiple counterparty failure within a firm's portfolio. The PRA expects firms to be prudent in recognising benefits when facing such a high level of uncertainty in the probability and potential size of the losses associated with funded reinsurance.

1.6 To determine whether these expectations are being met, the PRA will seek assurance on firms' practices in a proportionate way, focusing on the exposures that in its view present the greatest risk. The PRA may consider this as a topic in a firms' Periodic Summary Meeting, or where appropriate look to commission a Skilled Persons review. The PRA will continue to monitor how market practice evolves and will keep under review whether there is a need for further specific policy measures. This could include tools to address a potential build-up of sector wide vulnerability, where these might pose a risk to UK financial stability.

1.7 This SS should be read in conjunction with [Chapter 3 of the Conditions Governing Business](#), [Chapters 6, 7 and 11 of the Technical Provisions](#), [Chapters 24 and 24A of the Technical Provisions - Further Requirements](#), the [Solvency Capital Requirement - General Provisions](#), and the [Solvency Capital Requirement - Internal Models Parts](#) of the PRA Rulebook. This statement should also be read in conjunction with SS20/16,² SS7/18,³ SS8/18,⁴ and SS1/20.⁵

1.8 This SS expands on the PRA's general approach as set out in its insurance approach document.⁶ By clearly and consistently explaining its expectations on firms in relation to funded reinsurance, the PRA seeks to advance its statutory objectives of ensuring the safety and soundness of the firms it regulates and contributing to securing an appropriate degree of protection for policyholders.

1.9 Chapter 2 sets out PRA expectations for ongoing risk management of existing funded reinsurance contracts. Chapter 3 sets out PRA expectations with respect of the calculation of solvency capital requirements for such arrangements. ~~Finally,~~ Chapter 4 sets out PRA expectations relevant to a firm's decision making process when it comes to entering into and structuring new funded reinsurance arrangements. Finally, Chapter 5 sets out PRA expectations relevant to the calculation of the Counterparty Default Adjustment (CDA) for funded reinsurance contracts.

2 SS20/16 Solvency II: reinsurance counterparty credit risk: www.bankofengland.co.uk/prudential-regulation/publication/2016/solvency2-reinsurance-counterparty-credit-risk-ss.

3 SS7/18 Solvency II: matching adjustment: www.bankofengland.co.uk/prudential-regulation/publication/2018/solvency-2-matching-adjustment-ss.

4 SS8/18 Solvency II: internal models – modelling of the matching adjustment: www.bankofengland.co.uk/prudential-regulation/publication/2018/solvency-2-internal-models-modelling-of-the-matching-adjustment-ss.

5 SS1/20 Solvency II: prudent person principle: www.bankofengland.co.uk/prudential-regulation/publication/2020/solvency-ii-prudent-person-principle-ss.

6 PRA's approach to supervision: www.bankofengland.co.uk/prudential-regulation/publication/pras-approach-to-supervision-of-the-banking-and-insurance-sectors.

2: Ongoing risk management

2.1 This section sets out PRA expectations in respect of the risk management processes that firms are required to have in place to identify, measure, monitor, manage, and report the risks to which they are exposed in relation to their funded reinsurance agreements (among other things).⁷

2.2 Given the nature of the risks associated with funded reinsurance, the PRA expects firms' risk management processes to be particularly focused on the whole tail risk to which they are exposed.⁸ This reflects the fact that the loss distribution for funded reinsurance is unusually fat tailed, characterised by infrequent but very large losses.

2.3 The PRA expects firms' analysis of the risks arising from their funded reinsurance arrangements to provide sufficient evidence to enable their actuarial function to express an informed opinion on the adequacy of the firm's reinsurance arrangements.⁹ The PRA expects this analysis to demonstrate with a high level of confidence that the firm can withstand in a viable form either a single recapture event or multiple recapture events involving highly correlated counterparties. For this to be possible the size and structure of transactions should be limited in such a way that the financial and non financial impact of recapture are capable of being reliably estimated, particularly in stress. This can then be compared to the financial resources likely to be available to the firm in such stressed conditions.

Counterparty internal investment limits

2.4 As part of their investment risk management policy, developed in accordance with **Conditions Governing Business 3**, firms' internal investment limits should be designed taking into account the expectations set out in paragraphs 2.5 to 2.14 below.

2.5 For the purposes of developing internal investment limits in relation to funded reinsurance, the PRA expects firms at a minimum to calculate an 'immediate recapture' metric, taking into account the expectations set out in paragraphs 2.6 to 2.12. This metric should measure the impact on the firms' solvency capital requirement (SCR) coverage ratio

⁷ PRA Conditions Governing Business 3.1: www.prarulebook.co.uk/prarules/conditions-governing-business.

⁸ PRA Conditions Governing Business 3.1 and 3.2: www.prarulebook.co.uk/prarules/conditions-governing-business, SS20/16 Solvency II: reinsurance counterparty credit risk: www.bankofengland.co.uk/prudential-regulation/publication/2016/solvency2-reinsurance-counterparty-credit-risk-ss and SS1/20 Solvency II: prudent person principle: www.bankofengland.co.uk/prudential-regulation/publication/2020/solvency-ii-prudent-person-principle-ss.

⁹ PRA Conditions Governing Business 6.1: www.prarulebook.co.uk/prarules/conditions-governing-business.

of an immediate recapture of all business ceded to a counterparty, ignoring the likelihood of such an event. While other metrics might consider potential management actions in accordance with applicable legal requirements, this metric should be calculated before management actions are taken into account to maximise the reliability of the information provided to management. The immediate recapture metric applies only for the purpose of setting internal investment limits and not for other purposes, including to a firm's recapture plan or collateral policy. Additional aspects of the use of the 'immediate recapture' metric to set internal investment limits are set out in paragraphs 2.6 to 2.12.

2.6 The PRA expects firms to consider the nature of the collateral that they may inherit in such a recapture event and whether this would be sufficient and adequate to cover the technical provisions and risks recaptured. The PRA also expects firms to assume limited to no re-collateralisation of the portfolio by the funded reinsurance counterparty in stress.

2.7 If firms assume recapture within the matching adjustment (MA) portfolio, the PRA expects them to take into account prudent rebalancing and trading costs either through a reduced assumed MA spread or by allowing for these costs separately. Where funded reinsurance agreements grant substitution rights to the counterparty, the PRA expects firms to consider the risks that they recapture a 'worst-case' collateral portfolio, that is, a portfolio compliant with their collateral investment guidelines but at the lower end of credit quality and with poorly matched assets. The PRA also expects firms to allow for the increased costs of managing the portfolio post recapture.

2.7A The PRA expects firms to assume that assets can only be recaptured into an MA portfolio where those assets are already eligible under an existing MA permission. In particular, not to assume that further permissions might be in place at the point of recapture, nor that a Matching Adjustment Investment Accelerator (MAIA) permission (existing or future) would be available to allow any other recaptured assets to be held in an MA portfolio. However, the PRA considers that a firm can assume recapture of an asset into the MA portfolio using its MAIA permission where the asset: (1) is collateral in an intra group reinsurance arrangement; and (2) is the same¹⁰ as an asset already included in the firm's MA portfolio under a MAIA permission.

2.8 The exposure measurement basis of the immediate recapture metric should consider a range of scenarios covering the whole distribution of the risks in the tail. As such, the PRA expects firms' exposure for funded reinsurance to be measured in stressed conditions. This includes stresses to the liability cash flows and the value and quality of collateral. In particular, the PRA expects firms to consider the risks beyond the 1 in 200 confidence level

¹⁰ For these purposes, the same asset means an asset with the same obligor, and with all relevant and applicable characteristics necessary for that asset to be treated as equivalent in the market for such assets including, for example, class maturity, interest rate, being the same

over one year, for example taking a tail value at risk (TVaR) approach or using stress and scenario testing.

2.9 The PRA expects firms to set internal investment limits such that a singular idiosyncratic event of a recapture of business from one counterparty does not threaten the firm's business model. What constitutes a threat to the firm's business model should be defined by the firm itself in line with its risk appetite, risk management policies, risk tolerance limits and investment strategy alongside its overall business strategy. The PRA however considers that firms should avoid taking on single counterparty exposures which, upon recapture, could threaten their ability to continue to meet their solvency risk appetite or require significant value destroying management actions to be taken (such as closure to new business).

2.10 Where a firm's business model is reliant to a material extent on funded reinsurance with one counterparty, the PRA considers that this could present challenges with regards to compliance with the prudent person principle (PPP). Given the complex nature of risks associated with funded reinsurance arrangements and the associated uncertainties around valuation and the impact of recapture, the PRA expects firms to pay particular attention to these arrangements and avoid overexposures¹¹ or excessive reliance on a particular funded reinsurance arrangement.¹²

2.11 The limits should be set to avoid over exposure in any periods of high SCR coverage above firms' long term target SCR coverage ratios which could result in a breach of the exposure limit set by the firm when SCR coverage returns to long term target levels.

2.12 The PRA expects firms to consider broader factors when setting internal investment limits beyond the current external credit rating of the counterparties. The PRA expects firms to design appropriate counterparty approval and ongoing monitoring processes and to use the output of such processes to inform this limit setting rather than relying solely on changes to external credit ratings, which may take longer to react to underlying changes in risk.

2.13 Firms are reminded that in addition to setting internal investment limits to single counterparties, the PRA expects firms to have additional limits which considers other forms of concentration risks.¹³ For funded reinsurance this should include a limit based on the simultaneous recapture from multiple highly correlated counterparties. This should be based on an assessment of similarities in the risk profile of the counterparties operating in the funded reinsurance market. For example where a firm is exposed to multiple counterparties where credit risk makes up a majority of their post diversification capital requirements ie

¹¹ SS1/20 Solvency II: prudent person principle: www.bankofengland.co.uk/prudential-regulation/publication/2020/solvency-ii-prudent-person-principle-ss.

¹² Investments 5.2: www.prarulebook.co.uk/prarules/investments/02-07-2024.

¹³ PRA Conditions Governing Business 3.1: www.prarulebook.co.uk/prarules/conditions-governing-business and SS1/20 Solvency II: prudent person principle: www.bankofengland.co.uk/prudential-regulation/publication/2020/solvency-ii-prudent-person-principle-ss.

where the firm has an indirect concentrated exposure to credit risks the PRA expects firms to have an internal exposure limit that considers this concentration risk.

2.14 The PRA also expects firms to set an aggregate limit focused on the firm's own need for a diversified asset strategy as well as operational capabilities on recapture, independent of the counterparties. In setting this solvency based limit, the board should consider the recapture plan set out in paragraph 2.20 to 2.23 and in particular the ability of the firm to perform the required rebalancing of the asset portfolio, the required hedging activities, and the operational processes associated with the recapture.

Collateral policy

2.15 The PRA expects firms to have clear collateral policies in place as part of their risk management policies, with consideration of the collateral they are accepting exposure to factored into their limit setting process. The PRA expects the collateral policy to allow firms to formulate an executable recapture plan under stressed conditions (described in paragraph 2.20 below). Such a collateral policy should also allow firms to have a reliable estimate of the impact of recapture given the value and quality of asset liability matching of recaptured collateral; so that the firm can survive the impact of a recapture without it threatening the firm's business model (see paragraph 2.9).

2.16 The PRA expects a detailed collateral policy for illiquid assets in collateral pools backing funded reinsurance given the increased risk associated with their presence in collateral structures (due to the opaque nature of the value of illiquid assets and the lack of a deep and transparent secondary market for them). This may reference existing methodologies or documentation, and the level of detail should be proportionate to the size of exposures. It should cover at a minimum:

- approaches to credit assessment;
- valuation methodology by asset class;
- MA eligibility conditions monitoring;
- SCR modelling of the assets; and
- investment management approaches on recapture under different circumstances, including consideration of how assets may be managed long term if they cannot be easily sold.

2.17 Firms with MA approval permissions which intend to assume they can recapture collateral assets into their MA portfolio are reminded that they must ensure ongoing

compliance of such assets with the MA eligibility conditions as part of their internal risk management policies. Where firms have set out broad contractual definitions of MA eligibility conditions which may not match the firm's own MA approval permissions, the PRA expects firms to undertake robust testing of samples of assets held in the collateral portfolio to confirm MA eligibility in line with their approvals on a regular basis. The frequency of this ongoing monitoring should reflect the characteristics and materiality of the collateral assets.

2.18 For the purposes of their collateral management arrangements, the PRA expects firms should also only assess MA eligibility conditions in line with their own permissions, rather than assume that potential future applications for MA approval permission will be successful. The PRA expects firms that have MAIA permission to assume that recaptured assets for which the firm does not have MA permission cannot be recaptured into the MA portfolio using the firm's MAIA permission unless the asset: (1) is collateral in an intra group reinsurance arrangement; and (2) is the same¹⁴ as an asset already included in the firm's MA portfolio under a MAIA permission.

2.19 Finally, the PRA expects firms to develop supporting analysis to clearly demonstrate that in both prevailing and stressed economic conditions, the recapture from a counterparty would not result in a breach of the MA conditions (including the matching of cash flows).

Recapture plan

2.20 The PRA expects firms holding or entering into funded reinsurance arrangements to have a recapture plan which at a minimum covers the following:

- approaches to monitoring the financial condition of the counterparty to the funded reinsurance arrangement, and activities carried out if a deterioration is identified;
- a step by step process for achieving the recapture of all the assets and liabilities from relevant counterparties, taking into account all applicable laws;
- a step by step process for asset transfers by asset class, including contract novation (eg derivatives);
- actions to ensure MA compliance where recapture into the MA portfolio is assumed; and

¹⁴ For these purposes, the same asset means an asset with the same obligor, and with all relevant and applicable characteristics necessary for that asset to be treated as equivalent in the market for such assets including, for example, class maturity, interest rate, being the same.

3: Solvency capital requirement

3.1 This section sets out PRA expectations for firms' assessments of risks associated with funded reinsurance arrangements with the aim of capturing all material and quantifiable risks in their SCR when taking into account the effects of funded reinsurance as a risk mitigation technique.

3.2 For firms calculating their SCR on the basis of the standard formula, the PRA reminds firms of the requirement to include in their ORSA a clear assessment¹⁷ of the appropriateness of the standard formula including a consideration of the nature, scale, and complexity of the risks transferred, the risks retained, and the risks to which they are exposed to in respect of funded reinsurance arrangements.

3.3 For firms using internal models or partial internal models to calculate their SCR, the UK Solvency II Use Test requires the output of such models to play an important role in risk management, decision making, and capital allocation.¹⁸ The PRA expects firms to undertake robust modelling which takes into account the risks associated with funded reinsurance arrangements and to recognise the importance of the internal models or partial internal models output to the decision making process when it comes to deciding whether to enter into a funded reinsurance arrangement as a risk mitigation technique. Failure to do so may incentivise short term behaviours not compatible with the long term sustainability of the business.

3.4 In the context of funded reinsurance the PRA sets out in paragraphs 3.6 to 3.16 the specific expectations in respect of measuring the counterparty credit risk capital charge in firms' internal models or partial internal models, with the aim of capturing all material and quantifiable risks¹⁹ and taking into account the effects of funded reinsurance as a risk mitigation technique.²⁰

¹⁷ PRA Conditions Governing Business 6.1: www.prarulebook.co.uk/prarules/conditions-governing-business and chapter 11 of SS19/16 Solvency II: ORSA: www.bankofengland.co.uk/prudential-regulation/publication/2016/solvency2-orsa.

¹⁸ SCR – Internal Models 10: www.prarulebook.co.uk/prarules/solvency-capital-requirement---internal-models.

¹⁹ SCR - General Provisions 3.3: <https://www.prarulebook.co.uk/prarules/solvency-capital-requirement---general-provisions> and SCR - Internal Models 11.6: www.prarulebook.co.uk/prarules/solvency-capital-requirement---internal-models.

²⁰ SCR - General Provisions 3.5: www.prarulebook.co.uk/prarules/solvency-capital-requirement---general-provisions and SCR - Internal Models 11.8: www.prarulebook.co.uk/prarules/solvency-capital-requirement---internal-models.

3.5 Firms must document the design and operational details of its internal model and indicate any circumstances under which the internal model does not work effectively.²¹ In doing this the PRA expects firms to specifically document their level of confidence that their internal model for counterparty risk is working effectively to support the relevant management decisions regarding funded reinsurance. Where a sufficiently high level of confidence cannot be achieved the PRA expects firms to reflect the increased uncertainty in their system of governance, including the risk management system.²² The PRA expects firms to reflect such uncertainty by setting tighter limits to the funded reinsurance volume in paragraph 2.9 to 2.14 or further limits to the nature and structure of the transactions in paragraph 4.6 and 4.11, depending on the nature and source of the uncertainty.

3.5A The PRA expects firms to consider the impact of deterioration in the credit quality of counterparties^{22A} as part of the stressed CDA in the context of their reinsurance recoverables, taking into consideration the lifetime of the reinsurance contract. Where the funded reinsurance arrangement is in scope of Technical Provisions – Further Requirements 24A, the PRA expects the calculation for the CDA in stress should reflect how a downgrade of the counterparty leads to a higher FS – using technical information published by the PRA. The PRA does not expect firms to include an updated, forward-looking view of the FS in stress scenarios. Where firms are using internal models or partial internal models to calculate their SCR of a funded reinsurance arrangement, the PRA’s expectations set out in paragraphs 3.6 to 3.16 will continue to apply to all funded reinsurance arrangements. This is in respect of modelling counterparty default risk within an internal model or the partial internal model. The PRA considers a funded reinsurance transaction with weaker collateral or with a reinsurer with lower credit rating should lead to larger losses within the calculation of the firm’s SCR.

Probability of default

3.6 For probability of default (PD) the PRA’s expectations for firms in relation to their funded reinsurance arrangements include the following:

- **Adequate data** – firms should clearly articulate their data choice²³ for assessing the PD of their counterparties. This should include a consideration of whether the counterparties

²¹ SCR – Internal Models 15: www.prarulebook.co.uk/prarules/solvency-capital-requirement---internal-models.

²² SCR – Internal Models 10: www.prarulebook.co.uk/prarules/solvency-capital-requirement---internal-models.

^{22A} SCR – Internal Models 11.6: www.prarulebook.co.uk/prarules/solvency-capital-requirement---internal-models.

²³ SCR – Internal Models 11.2(2): www.prarulebook.co.uk/prarules/solvency-capital-requirement---internal-models.

operate in a similar market and whether the business models are adequately reflected in the data.

- **Stressed PD** – the PRA expects firms to calculate a PD both in prevailing conditions and under stress conditions to reflect all material risks²⁴ including the heightened risk of default in stressed credit conditions.
- **Termination clauses and dispute** – firms are reminded that they can take only account of risk mitigating effects of reinsurance in their internal models if the risks of the reinsurance are properly reflected.²⁵ One aspect of this is the cedant's position not only on the default, insolvency or bankruptcy of the counterparty but also on the occurrence of any other credit event set out in the transaction documentation.²⁶ The PRA expects that firms' calibration of stressed PD be informed by their internal policy on the actions they would take if certain contractual triggers are breached (referred to in paragraph 2.20).²⁷ Given the beneficial nature of these clauses for idiosyncratic counterparty risk management the PRA expect firms to be able to demonstrate that their presence in contracts reduces the scale and likelihood of large losses on recapture.
- **Solvency ratio** – the PRA expects firms to analyse how the solvency ratio of their counterparties changes under various market stresses and how this could inform their stressed PD.²⁸
- **Validation** - for the purposes of complying with the requirement in **SCR - Internal Models 14.1(1)(b)** in respect of funded reinsurance arrangements the PRA also expects firms to develop validation processes to specifically explain the sources of any day one new business gain²⁹ generated by entering a funded reinsurance arrangement. This could for example be carried out by comparing the premium paid to the counterparty and the premium which would have been charged by the firm in the absence of the funded reinsurance arrangement. Whilst the difference may largely be

²⁴ SCR – Internal Models 11.6: www.prarulebook.co.uk/prarules/solvency-capital-requirement---internal-models.

²⁵ SCR – Internal Models 11.8 and 11.10-11.12: www.prarulebook.co.uk/prarules/solvency-capital-requirement---internal-models.

²⁶ SCR – Internal Models 11.10-11.12: www.prarulebook.co.uk/prarules/solvency-capital-requirement---internal-models.

²⁷ SCR – Internal Models 11.3: www.prarulebook.co.uk/prarules/solvency-capital-requirement---internal-models.

²⁸ SCR – Internal Models 14.1 (1)(d): www.prarulebook.co.uk/prarules/solvency-capital-requirement---internal-models.

²⁹ A new business gain refers to an increase in regulatory surplus (own funds less SCR) which arises when premium paid to the reinsurer is lower than the premium received from the pension scheme, and the counterparty risk exposure does not generate significant SCR. BPA are historically written at new business strain.

driven by differences in cost of capital or investment strategy, it could help isolate other unexplained elements which indicate an increased level of risk not captured by the internal model.

- **Forward looking** – firms should consider whether their historical data captures all risks including forward looking risks of deterioration of the counterparty conditions.³⁰ The PRA expects firms to consider how the PD used can be informed by market surveillance activities or information implied from market traded instruments such as credit default swaps.
- **Non public information** – among other things firms should consider whether private information gathered as part of their counterparty approval processes set out in paragraph 2.12 would help inform their assessment of PD.³¹ For this purpose the PRA would not expect firms to use this private information to assign a lower PD to their counterparty.

3.7 Where data driven PD rates are perceived to be insufficient as a result of the analysis set out in paragraph 3.6 the PRA expects firms calculating their SCR using internal models or partial internal models to consider whether the rating of the counterparty needs to be adjusted downwards in their models or whether the data driven PD needs to be adjusted to reflect the inherent uncertainty.

3.8 The PRA also expects firms to set out and justify their approach to aggregating the capital charges from individual counterparty risks within their internal models or partial internal models, both between counterparties and more generally with other risks, and in particular credit risks.

Loss given default or downgrade

3.9 For loss given default or downgrade (LGD) the PRA's expectations for firms in relation to their funded reinsurance arrangements includes the following:

- **Stressed liabilities** – firms should stress the cash flows of the insurance obligations ceded under the reinsurance using the same approaches used in the relevant modules of the internal model or partial internal model. This should include stressing longevity

³⁰ SCR – Internal Models 11.2(2): www.prarulebook.co.uk/prarules/solvency-capital-requirement---internal-models.

³¹ SCR – Internal Models 11.2(2): www.prarulebook.co.uk/prarules/solvency-capital-requirement---internal-models.

risks and market risks within the liabilities such as inflation and market sensitive policyholder options.³²

- **Allowing for credit deterioration of the counterparty** – the PRA expects firms to consider the impact of deterioration in the credit quality of counterparties³³ as part of the stressed counterparty default adjustment (CDA) in the context of their reinsurance recoverables, taking into consideration the lifetime of the reinsurance contract.
- **Risk margin on recapture** – the PRA expects firms to consider the impact on the risk margin of the recapture of risks.³⁴
- **Management actions** – firms are reminded that management actions may only be taken into account in a firm's internal model where the requirements in SCR - Internal Models 11.8(3) are satisfied, including if they can reasonably be expected to be carried out. If there is insufficient data to demonstrate availability and pricing of certain management actions in a recapture event (for example the ability to source longevity reinsurance replacement), firms should adopt a prudent approach and not take into account such management actions in their internal models or partial internal models.

3.10 The PRA also expects firms to be able to demonstrate that their internal models or partial internal models capture wrong way risk. This may lead to a close interaction between the stressed PD and stressed LGD for counterparties where credit risk makes up a majority of their post diversification capital requirements or where the counterparty has originated the assets in its collateral portfolio. In such instances, deterioration in wider credit conditions can simultaneously increase PD and LGD.

Collateral

3.11 For the calculation of the risk mitigating impact of collateral on the firms' SCR calculation as it relates to funded reinsurance arrangements,³⁵ the PRA's expectations include the following:

- **Look through** – the PRA expects firms to stress the collateral portfolios on a look through basis to reflect the risks the firm would ultimately be exposed to on recapture. This should

³² SCR – Internal Models 11.6: www.prarulebook.co.uk/prarules/solvency-capital-requirement---internal-models.

³³ SCR – Internal Models 11.6: www.prarulebook.co.uk/prarules/solvency-capital-requirement---internal-models.

³⁴ SCR – Internal Models 11.6: www.prarulebook.co.uk/prarules/solvency-capital-requirement---internal-models.

³⁵ SCR – Internal Models 11.8 (2) and 11.10-11.12: www.prarulebook.co.uk/prarules/solvency-capital-requirement---internal-models.

include key market risks such as a credit spread stress, credit transition, and other stresses that might affect the underlying portfolio.

- **Collateral mismatch risk** – the PRA expects firms to consider where mismatches may arise between the stressed value of the underlying insurance liabilities that have been ceded and the stressed collateral required under the terms of the funded reinsurance arrangements.
- **Re-collateralisation** – where large gaps between the required collateral and the available collateral in the collateral portfolio emerge after immediate stresses, the PRA expects firms to apply prudent assumptions in setting recovery rates to reflect the risk that the counterparty might not be able to replenish the collateral.

3.12 The PRA expects firms to consider the risk that their counterparty to the funded reinsurance arrangement might not be willing or able to replenish the collateral portfolio in certain stressed conditions. This could be due to breaching solvency risk appetite, breaching regulatory solvency ratio, regulatory intervention ahead of breaching solvency ratio, or competing demands on their resources. The PRA expects firms to be able to demonstrate that their internal models or partial internal models consider the potential for reduced effectiveness in stressed conditions of the risk mitigation technique.³⁶

Recapture within MA portfolio

3.13 For firms with MA ~~approval~~ permissions the PRA considers that there are challenges and material uncertainties as to the ability of firms to recapture the assets and liabilities for the business ceded under a funded reinsurance arrangement into their MA portfolio without breaching MA portfolio compliance requirements. For the purpose of internal models or partial internal models the PRA therefore expects firms to assume that they recapture the assets and liabilities for the business ceded under a funded reinsurance arrangement outside of the MA portfolio ~~unless~~. Firms may assume otherwise if they are able to demonstrate clearly that such an inclusion would not result in MA non compliance in prevailing as well as stressed economic conditions, taking into account future management actions that can reasonably be expected to be carried out.³⁷ Where firms perform this analysis on the aggregate MA portfolio the analysis should consider both prevailing and stressed economic conditions on the whole book post recapture.

³⁶ SCR – Internal Models 11.10-11.12: www.prarulebook.co.uk/prarules/solvency-capital-requirement---internal-models.

³⁷ SCR – Internal Models 11.8 (3): www.prarulebook.co.uk/prarules/solvency-capital-requirement---internal-models.

3.13A The PRA expects firms that have MAIA permission to assume that recaptured assets for which the firm does not have MA permission cannot be recaptured into the MA portfolio using the firm's MAIA permission unless the asset: (1) is collateral in an intra group reinsurance arrangement; and (2) is the same³⁸ as an asset already included in the firm's MA portfolio under a MAIA permission.

3.14 Where a firm can demonstrate MA compliance on recapture in its MA portfolio in line with paragraph 3.13 above, the calculation of the SCR should be based on the spread of the collateral portfolio after the rebalancing necessary to achieve MA compliance. This should consider all material and quantifiable risks and may include but is not limited to:

- the stressed fundamental spread applicable to the collateral portfolio;
- the cost of replacing MA ineligible assets with alternative MA eligible assets of suitable quality;
- the cost of replacing assets where aggregate internal risk appetite limits for the management of the MA portfolio are reached;
- the cost of setting up a cross currency hedge programme in stress for currency mismatches in the collateral portfolio;
- trading activity to achieve internal appetite for the level and nature of cash flow matching on recapture of their collateral portfolio. This should clearly consider stressed trading costs relevant to the collateral asset portfolio; and
- the cost of other hedging after the recapture (including but not limited to foreign exchange, inflation, and interest rates derivatives which may not be recaptured).

3.15 The PRA understands that the collateral guidelines agreed with the counterparty to the funded reinsurance usually define MA eligibility conditions. Due to possible mismatch between the contractual definitions and the firms' actual MA approval permissions, the PRA considers that there are at least two risks that may arise in such situations relevant to firms that intend to assume recapture in the MA portfolio. The first is that non MA eligible assets are included within the collateral portfolio by mistake (for example as a result of the counterparty's controls being inadequate). The PRA expects this risk to be clearly reflected in a firm's internal models through an allowance for mistake, unless the firm has clear and regular monitoring activities to verify the MA eligibility conditions of collateral assets. The second risk is that the collateral portfolio contains assets for which the insurer does not currently have MA approval permission. In these instances the PRA expects firms to treat these assets as non MA eligible in their internal models or partial internal models.

³⁸ For these purposes, the same asset means an asset with the same obligor, and with all relevant and applicable characteristics necessary for that asset to be treated as equivalent in the market for such assets including, for example, class maturity, interest rate, being the same.

3.16 Firms are reminded that the expectations set out in section 5 of SS8/18, for maintaining compliance with the MA requirements in stress conditions are relevant in the context of funded reinsurance.

Draft for consultation

4: Entering into and structuring of funded reinsurance arrangements

Risk assessment

4.1 In accordance with the requirements of the PPP firms may only invest in assets, the risks of which they are able to identify, measure, monitor, manage, control and report, and take into account in the assessment of their own solvency needs in the ORSA.³⁹ This chapter sets out PRA expectations for the purpose of complying with PPP requirements when considering whether to enter into and agree to the terms of a funded reinsurance arrangement.

4.2 The PRA considers that to demonstrate compliance with PPP requirements a firm's decision to enter into a specific funded reinsurance arrangement would need to take into account all of the risks generated by the arrangement as a whole. A firm's reliance solely on internal pass or fail criteria, as set out in internally approved minimum guidelines, for negotiating and agreeing the terms of its funded reinsurance arrangement might be insensitive to the risk reward trade off made as part of the structuring process and insufficient to take account of all the risks.

4.3 As part of the assessment of risks, the PRA therefore expects firms, when negotiating funded reinsurance arrangements, to undertake a quantitative assessment to identify and measure the specific risks they might incur, for the purpose of determining their internal limits and risk management processes. This comprehensive risk identification process should then support the structuring process, allowing the implementation of adequate safeguards in funded reinsurance arrangements to mitigate the risks generated. Of key importance to this assessment are the market risks that firms indirectly expose themselves to when entering funded reinsurance arrangements.

4.4 For such a quantitative assessment the PRA considers that the following four step framework may assist firms in considering how this could be carried out. The steps in the framework are:

Step 1: identify all forms of basis risk and collateral mismatch risk that exist within the arrangement (reinsurance contract and collateral agreements).

Step 2: stress the risk factors that would lead to basis risk and collateral mismatch risk identified at the appropriate magnitude and over the appropriate time horizon.

³⁹ Investments 2.1(1): www.prarulebook.co.uk/prarules/investments/.

Step 3: based on the outcome of the quantitative risk assessment, determine whether the new arrangement falls within the firm's approved internal contractual risk appetite set out in paragraph 4.6.

Step 4: where the result is outside of the firm's risk appetite, firms should consider all potential options including reflecting this by seeking improved contractual protections in the reinsurance contract and collateral agreements.

4.5 The PRA considers that the framework described in paragraph 4.4 could help firms to ensure that their approach to identifying, measuring, monitoring, managing, controlling and reporting covers all material and quantifiable risks to which they would be exposed if they entered into the funded reinsurance arrangement. The PRA expects firms either to use this framework or satisfy themselves if they take a different approach that they are able to identify, measure, monitor, manage, control and report on all material and quantifiable risks to which they would be exposed if they entered into the funded reinsurance arrangement.

4.6 The PRA expects firms to have an approved internal contractual risk appetite statement setting out the maximum acceptable loss at the individual funded reinsurance contract level. Step 3 is to ensure that the proposed new contract is consistent with the risk appetite statement.

Basis risks

4.7 For the purpose of step 1 in the framework referred to in paragraph 4.4, the PRA expects a firm's identification of risks to include, at a minimum, an assessment of possible gaps between expected reinsurance cover and actual cover, for example, as a result of any of the following, as applicable:

- **Simplifications** – where the policyholder benefit structure has been simplified in the reinsurance contract for operational reasons or for ease of contract administration, gaps may arise under certain conditions between the reinsurance recoverable and the liabilities. For example a uniform escalation structure of benefits rather than reflecting the various limited price inflation formats may lead to gaps arising under certain inflationary conditions.
- **Modelling** – where the contract requires a projection of future cash flows under agreed assumptions (for example longevity improvement rates), differences or disagreements in views between the cedant and the counterparty can lead to large gaps. This is particularly relevant with respect to the event risk component of longevity risks.

- **Exclusions** – the contract might exclude certain elements of policyholder benefits or options (for example on spouse eligibility, lump sum, or fixed escalation). These can all lead to complex basis risk, particularly in cross terms such as the interaction of longevity and inflation.

Collateral mismatch risks

4.8 Similarly, for step 1 of the framework, the PRA expects a firm's assessment of collateral mismatch risks to include the following areas at a minimum:

- **Simplifications** – collateral mismatch gaps may arise from the nature of the collateral discounting curve used to determine the required amount.⁴⁰ Basis risk can arise where the indices used do not move in line with the required portfolio, or if the deductions for expected losses do not match the fundamental spreads methodology.
- **Underlying collateral behaviour** – where the collateral portfolio behaves differently from the required collateral amount there is a risk that large gaps may emerge in stress and the counterparty might be unable to replenish in stress. For example currency mismatches where the discount curve is stipulated in GBP but the underlying portfolio is mostly non GBP exposures, large losses may arise in certain stressed conditions.

Time horizon

4.9 The PRA expects firms to perform a quantitative assessment as set out in steps 1 and 2 in paragraph 4.4 under plausible stress scenarios, both for the full life of the contract and at potential contract termination ahead of contract completion. If the contract terminates early disputes on long term longevity improvements assumptions, for example, could result in large gaps.

4.10 For the collateral mismatch risk set out in steps 1 and 2 of paragraph 4.4, shortfalls can emerge both from how the collateral terms are defined and from the frequency of margining. The look through stresses applied should reflect how these underlying risks can lead to shortfalls in the collateral pool which might not be replenished before the counterparty defaults.

4.11 Where the margining is undertaken only on an infrequent basis, the PRA expects firms to consider the risk that large shortfalls emerge at recapture. These shortfalls could emerge from the length of the resulting period between the final successful collateral call before the default and the formal valuation of collateral after the default, and the resulting potential

⁴⁰ This curve building process involves a bottom up approach of a swap curve with the addition of option adjusted spreads of corporate bonds of different ratings and deductions for expected losses and cross currency swaps costs.

decline in collateral value during that period. Where more frequent, ad hoc revaluation options are available firms should only allow for this if they have clear approved policies on how they would use this power.

Contractual mitigations

4.12 Contractual protections can be a powerful tool to manage risks and incentivise the right behaviour on the part of the counterparty. The PRA therefore expects firms to have internally approved minimum guidelines on contractual features for funded reinsurance transactions which they would apply when deciding whether to enter into a funded reinsurance arrangement. This would include, but is not limited to, the approaches to termination clauses, substitution rights for collateral assets, valuation approaches, concentration limits, and choice of applicable law. This should also cover investment guidelines taking into consideration the PPP⁴¹ and the firm's internal investment strategy. The PRA expects firms to document the rationale for the choice of the minimum guidelines adopted in their policies.

4.13 The PRA also expects firms to use clear risk based collateral haircuts or over collateralisation linked to the risk being addressed. The PRA expects that asset specific risk based haircuts (rather than general over collateralisation) will be used where the risks relate to the specific assets in the collateral pool. The PRA expects that over collateralisation may be appropriate for risks that are not asset specific such as liability risks and asset liability mismatch risks. The haircut and over collateralisation policy should take into account the following expectations as a minimum:

- haircuts and over collateralisation should be calibrated to ensure that the risk of a shortfall in the realisable value of collateral in the event of default relative to the total amount due from the reinsurer to the cedant is within the level of confidence required by the approved internal contractual risk appetite statement (as defined in 4.6);
- haircuts and over collateralisation should allow for the expected volatility of key risk factors that drive the movement under stressed conditions in the value of the collateral assets and the total amount due from the reinsurer. This includes price volatility and currency volatility (if the risk is not hedged);
- haircuts and over collateralisation should capture other broader risk considerations that affect the value of collateral and the value of obligations from reinsurer to cedant in the event of default. This includes but is not limited to the impact of wrong way risks and cash flow mismatches on these values;

⁴¹ Investments Part: <https://www.prarulebook.co.uk/prarules/investments/> and SS1/20 Solvency II: prudent person principle: www.bankofengland.co.uk/prudential-regulation/publication/2020/solvency-ii-prudent-person-principle-ss.

- haircuts should be based on the market risks of the assets defined as eligible under the collateral agreement;
- haircuts and over collateralisation should be calibrated at a high confidence level, using a long historical time period that includes at least one stress period; and
- haircuts and over collateralisation should be calibrated to incentivise the correct behaviours on the counterparty.

Draft for consultation

5: Calculation of the counterparty default adjustment for funded reinsurance arrangements

5.1 Technical Provisions – Further Requirements 24A sets out how a firm determines the counterparty default adjustment (CDA) of a funded reinsurance arrangement. The PRA expects firms to consider the expectations set out in this chapter when carrying out these calculations and when carrying out the associated governance of the processes used.

Cash flow mismatch assessment

5.2 For the purposes of Technical Provisions – Further Requirements 24A.2(1)(b)(ii), firms need to determine whether any mismatch between the expected cash-flows gives rise to risks which are material in relation to the risks inherent in the reinsurance business. The PRA expects firms to assess the materiality of cashflow mismatch at the level of each funded reinsurance contract. Firms are to do this by comparing the expected cash flows of the ‘worst-case’ collateral portfolio (as set out in Technical Provisions – Further Requirements 24A.3) in stressed conditions and the expected cash flows of the funded reinsurance contract. In particular, the PRA expects firms to consider mismatches that arise from currency, timing, or other factors relating to nature or duration of the liabilities⁴². It also expects mismatches with such materiality that the collateral portfolio assets would fail to meet the liabilities covered by the funded reinsurance transaction in full as they fall due without significant transformation to be considered. The materiality of cashflow mismatch should be made only considering the assets and liabilities within the funded reinsurance contract being assessed.

5.3 If disposals, purchases or injections of assets are required for the worst-case collateral portfolio to meet the funded reinsurance transaction cashflows as they fall due, the PRA expects the firm to determine that the risks are material in relation to the risks inherent in the reinsurance business.

5.4 In line with Technical Provisions – Further Requirements 24A.2(b)(ii)(2), the PRA expects firms to demonstrate that all assets included in the collateral portfolio of the funded reinsurance arrangement are eligible to be included in the firm’s MA portfolio under an existing MA permission, in line with 2.7A. In particular, the firm should not assume that further

⁴² Investments 3.1: www.prarulebook.co.uk/prarules/investments.

permissions might be in place at the point of recapture to allow otherwise ineligible recaptured assets to be held in the firm's MA portfolio.

Weighted average credit quality assessment

5.5 When determining whether a funded reinsurance transaction meets the criteria set out in Technical Provisions – Further Requirements 24A.2(1)(b)(iii), the PRA expects firms to consider a weighted average credit assessment of the 'worst-case' collateral portfolio.⁴³

Firms should use this assessment to determine whether the collateral provides credit-enhancement relative to the most recent credit assessment of the reinsurer's financial strength.⁴⁴

5.6 For this calculation, the PRA expects firms should use a single table of weighted average rating factors provided by an external credit assessment institution to determine the weighted average rating of the 'worst-case' collateral portfolio. Where a firm uses an alternative approach, the PRA expects the firm should determine that the resulting weighted average quality lies within the plausible range of outcomes. The plausible outcomes are those that would be achieved if the assessment was made using tables of weighted average rating factors provided by external credit assessment institutions. Where ratings from different external credit assessment institutions for collateral assets are required to be combined in this calculation, the PRA expects firms to use the allocation of credit assessments to credit quality steps set out in **Solvency Capital Requirement – Standard Formula 1D**.

5.7 Where assets with no external credit assessment are permitted in the collateral portfolio, the PRA expects the firm to ensure that the approach to determining the credit assessment of those assets is consistent with the firm's approach to internal credit assessments. Firms should have regard the PRA's expectations set out in SS3/17 – **Solvency II: illiquid unrated assets**. Where the liabilities ceded under a funded reinsurance transaction are held within the firm's MA portfolio or if the firm assumes recapture into its MA portfolio, the PRA expects the firm to ensure that the approach is consistent with the rules set out in **Chapter 7 of the Matching Adjustment Part of the Rulebook**. In particular, the PRA expects the firm should determine that any internal credit assessment of collateral assets permitted for inclusion in the collateral portfolio is consistent with the firm's own internal credit assessment if those assets were held directly by the firm. Where such a determination cannot be made by the firm, the PRA expects the firm to take a prudent approach and assign a credit quality step no better than 3 to the relevant assets.

⁴³ As set out in Technical Provisions – Further Requirements 24A.3.

⁴⁴ As set out in Technical Provisions – Further Requirements 24A.2(1)(a).

Credit quality step (CQS) mapping methodology

5.8 The PRA expects firms to maintain a funded reinsurance CQS mapping methodology to document the approach to determining the credit quality step of a funded reinsurance transaction in accordance with Technical Provisions – Further Requirements 24A.2. The PRA expects firms to document the judgements underlying this methodology, particularly those used to meet the expectations set out in paragraphs 5.2 – 5.7, and those made for the areas set out in paragraphs 5.9 to 5.11. The PRA expects that firms will require this document to be approved by an appropriate individual in a Senior Management Function role, in most cases the Chief Risk Officer (SMF4), and presented to the board.

5.9 Pursuant to Technical Provisions – Further Requirements 24A.2(1)(a), where no external rating is available for a counterparty, and a firm has assigned a credit quality step of 3 minus one rating notch, the PRA expects the methodology to document any additional contractual safeguards (required by the firm in such circumstances). The PRA considers where a funded reinsurance transaction is completed with a reinsurer that does not have an external credit assessment, it is likely that the ceding firm would require additional safeguards (e.g. parental guarantees) as part of its risk management processes.

5.10 Pursuant to Technical Provisions – Further Requirements 24A.2(1)(b)(ii), where a firm has identified risks arising from mismatch in cash flows, the PRA expects the methodology to specify the contractual safeguards in place to mitigate those risks. Where the contractual safeguards include a comparison of the duration of the assets against the duration of the liabilities, the PRA expects the firm to document additional safeguards required to mitigate the cashflow mismatch risk.

5.11 Pursuant to Technical Provisions – Further Requirements 24A.2(1)(b)(iii), where a firm agrees to the use of credit assessments of the collateral assets other than through obtaining an external credit rating, the PRA expects the firm to document this in their methodology, outlining how the contractual terms of the funded reinsurance ensures that the credit assessment will be consistent with the firm's own internal credit assessment methodology. This could include a framework approach, data sharing requirements and/or ongoing monitoring processes. Where collateral assets could have features not considered within the firm's own internal credit assessment methodology, the PRA expects the firm's methodology to document what appropriate contractual safeguards justify using the internal credit assessment approach.

5.12 The PRA expects a firm to review its CQS mapping methodology in advance of completing any new funded reinsurance transaction, or restructuring existing funded reinsurance transactions. This is to ensure the features of each funded reinsurance transaction are fully captured within the firm's approach to complying with Technical Provisions – Further Requirements 24A.2. The PRA also expects the CQS mapping

methodology to be reviewed following any changes to MA permissions that may impact whether the assets permitted in the collateral pool are eligible to be included in the firm's MA portfolio under its MA permission. The PRA expects the firm's SMF holder identified in paragraph 5.8 to approve changes to the CQS mapping methodology and, if the cumulative changes are substantial (in the view of the SMF holder), these should be presented to the firm's board.

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