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Bank of England PRA

Chief Risk Officers of Life Insurance firms regulated by the PRA

Charlotte Gerken
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15 June 2023

[Dear Chief Risk Officer]

Feedback on the PRA's preliminary thematic review work on funded reinsurance arrangements

We are writing to share insights from our thematic review of funded reinsurance (FundedRe) arrangements in the UK life insurance sector. [1] As the Senior Manager responsible for identifying, assessing, and mitigating risks to the business, and a source of independent challenge, we consider that as the Chief Risk Officer, you are well placed to assess the extent to which the points raised below are relevant to your business and how they are being addressed.

Context

In recent years we have seen a growing appetite for the use of FundedRe in the life insurance market in supporting bulk purchase annuity (BPA) where writers competitively bid for new business. FundedRe is the transfer of both asset/investment risk and longevity risk to a reinsurer, that is, all the material risks of a BPA transaction[2], to a reinsurer.

We wanted to gain a better understanding of the motivation for, and nature of the transactions that UK life insurers (firms) are entering into; how insurers are assessing the benefits and risks relating to them; and what risks FundedRe itself and/or insurers' approaches to it may pose to the PRA's statutory objectives. For our review, we spoke

[1] For the purposes of our thematic review and this letter FundedRe refers to a form of collateralised quota share reinsurance that typically transfers the whole of the asset/investment risk and longevity risk to the reinsurer. It is often referred to as asset-intensive reinsurance, asset-backed reinsurance and/or quota share reinsurance. Our review has mostly been focussed on arrangements structured after the implementation of Solvency II.
[2] Retained risks include policyholder options, inflation, expenses, and operational risks.

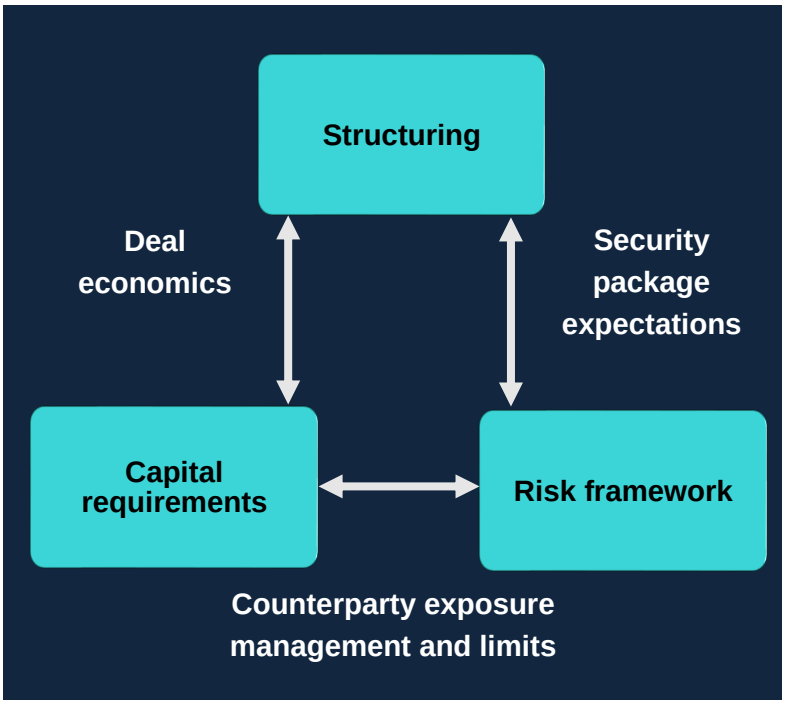
to a number of market participants including insurers, reinsurers, and consultants. We would like to thank all those who helped us with our thematic review through providing information and having discussions with the review team.

Thematic review approach

Our thematic work looked at firms' practices in:

- structuring of the transactions;
- risk frameworks; and
- capital requirements.

As shown in the diagram, we would expect clear links between these three components. They therefore need to work in unison, as weaknesses in one area, or insufficient integration, may lead to poorly informed business decisions.



We have observed many transactions resulting in significant day one 'new business gain'[3], and have considered whether the capital treatment is consistent with the risks transferred and counterparty risks retained by insurers.

Key risks

Our conversations with market participants indicate that the key rationale for the use of these arrangements include capital deployment restrictions, asset origination capabilities limits, and market presence growth. These arrangements are being used in an increasingly competitive BPA market where demand is expected to significantly increase due to recent improvements in funding ratios[4].

The risks in these arrangements need to be considered in the context of rapid structural shifts in the global life insurance market. The International Association of Insurance

[3] A new business gain refers to an increase in regulatory surplus (Own Funds less Solvency Capital Requirement (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.

[4] Moderation in all things - speech by Charlotte Gerken: **www.bankofengland.co.uk/speech/2023/april/charlotte-gerken-speech-bulk-annuities-conference**.

Supervisors (IAIS) has reported areas of increased uncertainty stemming from rapidly changing business models and the growing market share of new entrants. [5]

Given these shifts in counterparties in the global market, the Prudential Regulation Authority (PRA) is mindful of the potential risk of underestimation of counterparty risks by UK life insurers. We have identified four areas of potential risks:

1. **Probability of recapture (PR) –** The market is made up of new reinsurers with rapidly growing business models or existing reinsurers whose business models are increasingly concentrated. Historical evidence of default risk might not be appropriate to capture all elements of recapture risk.

2. **Correlated PR –** These new business models are increasingly credit-focussed[6] (as opposed to biometric risk driven). This increases the likelihood that credit cycle shocks affect multiple reinsurers at the same time.

3. **Loss given recapture (LGR) –**Given the credit-focussed nature of these reinsurers, strong 'wrong way' risk exists in these transactions, as a credit cycle shock is likely to cause the deterioration of the reinsurer as the same time as the collateral portfolio.

4. **Management actions –** On recapture, certain management actions might not be effective. In particular, as recapture is likely to occur during a credit cycle stress, replacement contracts may not be available and market activities such as hedging, or rebalancing may be ineffective.

Main thematic findings

Our review has therefore focussed on the potential for disruption arising from recapture (default or otherwise) at a time of market stress. Firms' practices showed some material shortcomings in several areas (structuring, risk management, capital requirements), including when assessed against our current policies and expectations. See Annex 1 for a detailed summary of the findings.

- **Sub-optimal collateral portfolios –** One of the key risks arising in FundedRe is that firms recapture sub-optimal portfolios (unmatched or with inadequate assets) with depressed values and with limited ability to be transformed effectively to the firms' preferred portfolio. As part of our review, we have identified structural features of contracts that generate this risk.

- **Resource sufficiency –** The second source of risk is the impact on the sufficiency of some firms' resources (financial and operational) on recapture. We

[5] Global Insurance Market Report (GIMAR): **www.iaisweb.org/activities-topics/financial-stability/gimar**.

[6] Credit-focussed refers to a business model geared at earning investment spreads, often from self-originated assets.

have observed a positive trend of improvement in firms' internal risk frameworks and internal models to capture these aspects of FundedRe arrangements. However, these need to be more closely connected to the terms of the contracts. Moreover, there remains a high reliance on management actions under stress both within internal models and in risk management frameworks. These need robust challenge as such actions might not be viable in all market conditions.

These shortcomings create risks to the PRA's safety and soundness and policyholder protection objectives, and we need firms to take actions to improve the way in which they manage the risks in these transactions if they plan to participate in this market.

Next steps

In line with existing obligations, we would ask you to consider the findings of this letter in relation to your business and take the appropriate remedial actions. This should also include continued compliance with the PRA supervisory statement (SS) SS1/20 – Solvency II: Prudent Person Principle, considering potential concentration to single counterparties or common risk factors across counterparties[7]. SS20/16 – Solvency II: reinsurance – counterparty credit risk[8] also places key responsibilities on boards and expects appropriate treatment, both in terms of: (a) whether there is an effective transfer of risk; and (b) the appropriate SCR treatment, recognising the scope of the risk transfer and the counterparty credit risk.

The PRA will continue to challenge these areas where we see weaknesses within firms or inadequate justification for the assumed effectiveness of management actions. Our findings from this preliminary review have led us to plan further supervisory work around insurers' use of FundedRe. This will include targeted supervisory work in areas of collateral risk management and internal model approaches.

We are also considering the need for the PRA to develop and consult on further specific policy beyond existing expectations, and we will value expert knowledge and views from industry and other stakeholders to inform our thinking. We will consider whether further steps are needed to advance the PRA's primary objectives, while also assessing the potential impacts on the PRA's secondary objective for competition and its forthcoming secondary objective for international competitiveness and growth. This process will also take into account broader BPA market dynamics, including the role of a growing and competitive BPA market both in contributing to pension scheme member security and supporting sponsors de-risk their balance sheet.

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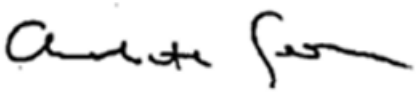
[7] SS1/20 – Solvency II: Prudent Person Principle: **www.bankofengland.co.uk/prudential-regulation/publication/2020/solvency-ii-prudent-person-principle-ss**.

[8] SS20/16 – Solvency II: reinsurance counterparty credit risk: **www.bankofengland.co.uk/prudential-regulation/publication/2016/solvency2-reinsurance-counterparty-credit-risk-ss**.

We see limited risks to the PRA's objectives from the use of FundedRe within a diversified asset strategy, as a means to gain (indirect) exposure to asset classes beyond the origination capacity of the UK industry. However, we see significant potential risks to the PRA's objectives from the systematic use of FundedRe to meet the increase demand for bulk transfer of defined benefit pension liabilities. The effect might be to accelerate these transfers in the short run, but it would come at a cost of creating a systemic vulnerability in the form of a concentrated exposure to correlated, credit-focussed reinsurers, and an opportunity cost in the form of UK productive investment foregone. We will examine these factors further as we consider the case for further policy proposals in this area.

Finally, most firms have been keeping their PRA supervisors informed of FundedRe transactions they are entering into and their risk management approach to them. However, given the volume of the transactions accumulating and the PRA's interest in understanding the risks arising from such concentration, we would like all firms to notify their supervisor promptly of individual material[9] FundedRe transactions entered into from the date of this letter.

Yours sincerely



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Executive Director, Insurance Supervision,

Prudential Regulation Authority

[9] Materiality should be considered in the context of impact on SCR, amount of gross premium and/or complexity of the arrangement. We would presume that gross premium in excess of £200mn would be considered material.

Annex 1: Findings of the preliminary thematic review work on FundedRe arrangements

Structuring

We have reviewed a selection of FundedRe transactions executed since 2019, looking at term sheets, governance papers and contractual documents. We summarise below our findings.

- **Collateral portfolios** – As part of our review of collateral investment guidelines, we noted a number of areas of concern when considering the current and planned level of:

  (1) Non matching adjustment-eligible assets;[10]

  (2) Illiquid and private assets, including structured and securitised assets;

  (3) Liquid assets outside the core expertise of the insurer; and

  (4) Non-GBP assets.[11]

  The PRA understands that including these assets in the collateral pool can greatly improve the economics of the transaction; however, they can significantly reduce the efficacy of collateral to mitigate risks. For example, on recapture, some of these assets would have to be traded in a potentially stressed market, leading to losses. Similarly, it might be difficult to set up large scale cross currency swap programmes under stress. Firms need to exercise prudence when setting limits in these areas within the collateral investment guidelines, and these limits should clearly be informed by the overall security package.

- **Under-collateralisation** – We noted that collateralisation was measured in several ways by firms (initial premium, best estimate liabilities (BEL), IFRS technical provisions). In some instances, the contracts were collateralised at less than 100% of initial premium. This was portrayed as adequate when then compared to the BEL with an implicit matching adjustment (MA) spread and after the application of asset valuation haircut. Collateralisation levels can be very dynamic, leading to potential risk of under-collateralisation in certain market conditions that need to be clearly understood when structuring and managing these contracts.

[10] By MA-eligible here, we refer to eligibility within the insurer's own permissions.

[11] Positions can either be unhedged or hedged but with the inability of the derivative contract to transfer to the insurer on recapture, this effectively leads to a position where the insurer would have to trade significant volumes of cross-currency swaps on recapture.

- **Asset-liability mismatch** – Under Solvency II, firms with MA approvals are expected to match their liability and asset cash flows. In some of these transactions we identified:

  (1) large permissible duration mismatches between the assets in the collateral pool and the liabilities ceded; and

  (2) the absence of more sophisticated matching requirement (key rate duration matching or cashflow matching). On recapture, such absences can generate portfolios that are insufficiently matched leading to complex rebalancing actions in stressed markets. As such, stricter asset liability management (ALM) principles embedded in these contracts should be considered as a mitigant to avoid large rebalancing actions in stress.

- **Haircuts** – In some instances, there was a complete absence of collateral valuation haircuts. Where present, firms did not have a clear framework for setting adequate valuation haircuts to reflect underlying risks in the collateral portfolio and this was not informed by their internal model output. Haircuts can be beneficial in addressing wrong way risk[12] and wider ALM considerations (unhedged currency mismatch, rebalancing needs, etc) as part of their haircut calibration framework.

- **Required collateralisation amount** – The amount held in the collateral pool is often determined on a discounted cashflow basis with a prescribed discount curve. 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. Where the discount curve is driven by the market spreads of the collateral portfolio, firm safeguards should be in place to prevent the reinsurer changing the portfolio to higher spread assets. On the other hand, if this is more market-index driven, more frequent margining frequency could be helpful to reduce the risk of collateral gaps.

- **Termination triggers** – We observed that some termination triggers linked to the reinsurer's solvency ratio were set at levels that were insufficiently prudent, for example at the regulatory intervention level. Clear early termination triggers are beneficial and automatic triggers, where necessary, need to be set at the appropriate level and informed by the business and risk profile of their reinsurers.

[12] Wrong way risk refers here not to self-issued instruments but to the strong correlation between the reinsurer and the asset classes present in the collateral portfolio, for example, where a reinsurer posts CRE assets into a collateral portfolio, but also has a large exposure to CRE of a similar risk profile.

- **Margining frequency** – In some instances, there were infrequent collateral rebalancing requirements (for example, quarterly) and the absence of ad-hoc options for rebalancing. Different sources and forms of basis risks in the collateral portfolio could inform the frequency decision. Moreover, we have compared approaches to products with similar risk profiles in the wider marketplace, including secured financing transactions, and found large differences.

- **Escalation triggers** – A number of transactions contained contractual triggers for strengthening of the collateral package in certain events. For example, this included increased collateralisation levels in the event of a reinsurer credit rating downgrade. Setting these triggers at adequate levels can be difficult as, if set too low, could magnify a liquidity stress events at the reinsurers and further lead to deterioration in the security package.

Risk management

Beyond the contractual terms of the arrangements, we also performed a high-level review of risk management approaches that firms adopted.

- **Counterparty exposure measurement** – Market participants considered the impact on their solvency coverage ratio both on 'immediate recapture' (no management actions) and 'long term impact' (after certain management actions). For the 'long-term impact' metric, firms need to understand the full scope of potential actions required and estimate the cost of such actions under stress. The 'immediate recapture' measure is the most reliable metric as it represents the least subjective measure and remains independent of uncertain future market conditions.

- **Exposure limits** – There were a wide range of practices for setting counterparty risk limits. Firms generally set these at a level such that recapture would not cause their current solvency ratio to drop below an internal solvency coverage ratio appetite (a dynamic limit). In other instances, we noted that firms set limits based on maximum loss to the solvency coverage ratio (static limit). Dynamic limits need to be considered carefully so as not to generate issues in market stress and firms need to understand how the limits might move under stress. Limits setting should be informed by the credit rating and solvency coverage of the reinsurer, as well as broader considerations including the business model of the reinsurer (ie asset-focussed vs biometric focussed). Any management actions assumed within the calculation of the impact of a FundedRe arrangement being replaced or recaptured should also be carefully considered and realistic.

- **Scenario and stress testing** – We found limited evidence of scenario and stress testing in counterparty risk focussed on FundedRe. Regularly data-driven stress testing exercises (rather than qualitative) to understand the scale of the rebalancing and trading required under stress can inform the structuring and the appetite setting. The complete set of management actions required should clearly be set out and management should test the reliability of the cost and benefit of these actions.

Balance sheet and internal model

We have also considered how the funded reinsurance arrangements were treated on the Solvency II balance sheet and within internal models.

- **Probability of recapture (PC)** – We noted that firms mostly relied on historical probability of default (PD) data typically used to calibrate PC. Here we found an issue with relevance given the use of global insurance PD proxies and/or corporate PD proxies. These may not truly reflect the underlying risks associated with these newer or rapidly evolving business models. There was an absence of consideration of forward-looking aspect of PC in models.

- **Recapture triggers** – Our work identified a number of circumstances leading to the recapture of the business, which extended beyond simply the default of the reinsurer. These are essential elements of the risk management of these contracts and could inform exposure measurements and internal models.

- **Loss given recapture (LGC)** – We observed that the underlying collateral portfolio was actually modelled (on a look-through basis) under stress only in limited instances, taking into consideration the various market risk drivers. For example, we noted instances where firms modelled collateral gaps through haircuts or assumed it was normally distributed. Modelling the actual underlying collateral portfolio under stress on a look-through basis (for example, spread, defaults and downgrades) would greatly inform management understanding of these contracts.

- **Management actions** – Firms made a number of management actions assumptions on recapture, including sourcing replacement longevity swap at increased price or various rebalancing actions under stress. We observed limited evidence of allowance for reasonable rebalancing costs within the MAP (except the costs of cross-currency swaps), despite likely differences in collateral liquidity and MA eligibility.