

Bank of England PRA

Solvency II: Matching adjustment

Supervisory Statement | SS7/18

November 2024 (updating June 2024)



Contents

1: Introduction	1
------------------------	----------

1A: The assumptions underlying the MA	3
--	----------

2: Asset eligibility	6
Screening process	6
Credit quality	7
Management in accordance with the PPP	7
Pairing or grouping of assets	7
Assets with highly predictable (HP) cash flows	8
Fixed cash flows	10
Partial recognition of an asset's cash flows	10
Redemption or termination clauses	11
Extension on default clauses	12
Reinsurance assets	12
Cash flows dependent on certain risks	13
Use of foreign exchange (FX) forwards	13
Cash flows with uncertain but bounded timing	14
Cash flows dependent on realisable asset values	15
Cash flows on sub-investment grade assets	15
Sufficient compensation	15
Equity release mortgages (ERMs)	18
Cash items	18
Collective investment schemes	18
Asset restructuring	19

3: Liability eligibility	26
Mortality risk	26
Guaranteed components of with-profits	26
Income protection	26
Group dependant annuities	27
Deferred premiums	27
Premium adjustment clauses	27
Policyholder options or surrender options	28

4: Best estimate cash flows and matching	30
---	-----------

Best estimate cash flows for assets with HP cash flows	30
Demonstration of matching	32
5: Calculation of the MA	36
Structure of the FS	36
Use of the FSs published by the PRA	38
Reinsurance of MA business	38
Group consolidation	39
Additions to the FS for assets with HP cash flows	39
Application of the FS addition in the MA calculation	43
Attestation	43
6: Liquidity plan	49
7: Management of an MA portfolio	51
Collateral management	51
Demonstration that an MA portfolio is identified, organised and managed separately	52
Demonstration of the appropriateness of the investment policy	53
Rebalancing assets in an MA portfolio	54
Extraction of surplus	56
Transferability and recognition of diversification	56
Treatment of new business	57
8: Ongoing MA compliance	58
Breach of MA eligibility conditions	58
9: Changes to MA portfolios	61
Variations of MA permissions	61
Delegation of authority to submit MA applications	62
Changes to an MA portfolio without a variation in MA permission	63
Appendix 1: PRA Matching Tests	64
Reporting of PRA Matching Test results	67
Annex – SS7/18 updates	68

1: Introduction

1.1 In this supervisory statement (SS), the Prudential Regulation Authority (PRA) sets out its expectations of firms in respect of application of the matching adjustment (MA). The MA allows firms to adjust the relevant risk-free interest rate term structure for the calculation of a best estimate of a portfolio of eligible insurance obligations.

1.2 The scope of this SS includes:

- the assumptions underlying the MA;
- the assessment of eligibility for assets and liabilities;
- demonstrating compliance with the MA eligibility criteria for matching;
- calculation of the MA and attestation to the appropriateness of the MA benefit being claimed;
- ongoing management and compliance of MA portfolios;
- applications for MA permission and subsequent changes to an MA portfolio; and
- the implication of changes to the MA portfolio that are outside the scope of an existing MA permission.

1.3 This SS is relevant to all UK Solvency II firms and the Society of Lloyd's and its managing agents (collectively called 'firms' in this SS), where they are applying for, or have, permission to use the MA. This statement should be read in conjunction with the PRA's rules in the Solvency II Sector of the PRA Rulebook, in particular the Matching Adjustment Part of the PRA Rulebook, the PRA's approach to insurance supervision,¹ SS9/14,² SS3/17,³ SS1/20,⁴ the statement of policy (SoP) on MA permissions⁵ and The Insurance and Reinsurance Undertakings (Prudential Requirements) Regulations 2023 (referred to here as the 'IRPR regulations').

1.4 As part of meeting the applicable eligibility conditions as set out in regulation 4 of the IRPR regulations and Chapter 2 of the Matching Adjustment Part, referred to in this SS as 'the MA eligibility conditions', firms should note that this includes compliance with the Prudent Person Principle (PPP). The PRA expects that firms should also assess carefully, and be able to demonstrate, their compliance with all other relevant requirements, including for the

1 PRA's approach to insurance supervision available at www.bankofengland.co.uk/prudential-regulation/supervision.

2 'Valuation risk for insurers', November 2015: www.bankofengland.co.uk/prudential-regulation/publication/2014/valuation-risk-for-insurers-ss.

3 'Solvency II: illiquid unrated assets', June 2024: www.bankofengland.co.uk/prudential-regulation/publication/2017/solvency-2-matching-adjustment-illiquid-unrated-assets-and-equity-release-mortgages-ss.

4 'Solvency II: Prudent Person Principle', June 2024: www.bankofengland.co.uk/prudential-regulation/publication/2020/solvency-ii-prudent-person-principle-ss.

5 June 2024: www.bankofengland.co.uk/prudential-regulation/publication/2024/june/solvency-ii-matching-adjustment-permissions-statement-of-policy.

calculation of the MA and risk management that are set out in the Matching Adjustment Part, Conditions Governing Business Part and the Investments Part of the PRA Rulebook.

1.4A [Deleted]

1.5 The PRA expects firms to assess their use of the MA taking into account the assumptions underlying the MA, as set out in Chapter 1A of this SS. The PRA will also assess firms' use of the MA taking into account these assumptions.

1A: The assumptions underlying the MA

1A.1 The MA is an adjustment to the discount rate used to value certain insurance liabilities that represents a proportion of the spread (above the relevant risk-free rate) that an insurer projects to earn over the future lifetime of the assets matching its MA liabilities. It effectively increases the capital resources of the insurer through the associated reduction in the valuation of the MA liabilities. The MA framework recognises that insurers with predictable liability cash flows that are closely matched by asset cash flows are not materially exposed to the risk of having to realise those matching assets in unfavourable circumstances. Consequently, the MA framework does not encourage procyclical behaviour.

1A.2 Under Conditions Governing Business 3.2(2), firms are required to assess the sensitivity of technical provisions and eligible own funds to the assumptions underlying the calculation of the MA (or equivalently 'assumptions underlying the MA'). A firm should also assess the extent to which its risk profile is consistent with those assumptions. Deviations from those assumptions would create a risk that the MA applied does not reflect the proportion of the spread that the firm may expect to earn with high confidence given its actual risk profile. It is important that the firm assesses this risk when making its attestation (in line with the requirements of Chapter 9 of the Matching Adjustment Part) and when considering the need for any addition to the fundamental spread (FS) to allow that attestation to be made (as per regulation 6(9) of the IRPR regulations and Matching Adjustment 4.17).

1A.3 The PRA considers the key conceptual assumptions underlying the MA to be as follows:

- Firms that are suitably cash flow matched in respect of their assets and liabilities and adopt a hold-to-maturity investment strategy are not exposed to certain risks. Therefore, those firms may expect to earn, with high confidence, the portion of the credit spread on their assets that represents compensation for risks to which they are accordingly not exposed.⁶
- The total credit spread can be separated into two components: the FS, which reflects compensation for the risks retained by the firm, and the MA, which is the residual spread reflecting an allowance for risks that are not retained by the firm.⁷ The FS covers (at least) an allowance for expected default and downgrade losses.⁸

⁶ Regulations 4 and 5(4) of the IRPR regulations and 4.6 of the Matching Adjustment Part. The PRA also notes part of the original rationale for the MA that was articulated (under Omnibus II) in Recital 31 of Directive 2014/51/EU of the European Parliament and of the Council.

⁷ The MA may include the additional spread relating to costs incurred in origination or mitigation of risks that would otherwise be retained as discussed in paragraphs 5.38 and 5.39 of this SS.

⁸ Regulations 5 and 6 of the IRPR regulations and Chapter 4 of the Matching Adjustment Part.

- The FS for the risks retained by the firm is calculated using a transparent, prudent, reliable and objective method, which is consistent over time and between assets of different currencies and countries.⁹
- The FS applied to each asset is derived from historical, long-term data that is relevant for that asset's duration, credit quality and asset class.¹⁰
- The firm acts in accordance with effective risk management practices and, when implementing the hold-to-maturity investment strategy, replaces assets for the purpose of maintaining matching only where the expected asset and liability cash flows have materially changed.¹¹

1A.4 The PRA considers that the following are the technical assumptions, which are the key policy requirements in relation to the technical information published by the PRA for the calculation of the MA (ie inputs to the calculation of technical information for the FS):

- The outcome of credit rating processes, or equivalent credit assessment processes, on individual assets provide an objective and reliable measure of risk. These credit ratings are mapped to an FS that appropriately reflects the asset's credit quality.¹²
- For the purposes of calculating the credit spread corresponding to the probability of default and expected loss resulting from the downgrade of an asset, 30% of the asset's market value can be considered recoverable on default.¹³
- Expected downgrade losses are determined based on immediately replacing a downgraded asset with an asset of the same asset class, same cash flow profile and the same or higher credit quality. For the purpose of this calculation, downgrades are measured only in full Credit Quality Steps (CQSs).¹⁴
- The FS is at least 35%, or in the case of UK government bonds 30%, of the 30-year average of the observable credit spreads on assets of the same duration, credit quality and asset class.¹⁵

1A.5 In addition to the above, the PRA's published technical information¹⁶ for non-government exposures is based on data for well-diversified portfolios of corporate bonds. Therefore, the technical information assumes that the risk profile of firms' exposures is well represented by a well-diversified portfolio of externally rated and traded corporate bonds.

⁹ Regulations 6(1) and 6(6)(e) of the IRPR regulations and Matching Adjustment 4.8 and 4.13(5).

¹⁰ Regulations 6(4), 6(5), 6(6)(b) and 6(6)(c) of the IRPR regulations and Matching Adjustment 4.11, 4.12, 4.13(2) and 4.13(3).

¹¹ Regulation 4(5) of the IRPR regulations.

¹² Chapter 4 of the Matching Adjustment Part and Rules 1A.1 and 1A.5 of the Solvency Capital Requirement – Standard Formula Part of the PRA Rulebook.

¹³ Regulation 6(6)(a) of the IRPR regulations and Matching Adjustment 4.13(1).

¹⁴ Regulation 6(6)(c) of the IRPR regulations and Matching Adjustment 4.13(3).

¹⁵ Regulations 6(4) and 6(5) of the IRPR regulations and Matching Adjustment 4.11 and 4.12.

¹⁶ www.bankofengland.co.uk/prudential-regulation/key-initiatives/solvency-ii/technical-information.

1A.6 Firms should take account of the assumptions set out in paragraphs 1A.3 to 1A.5 above when considering how they comply with technical provisions requirements (as set out in the Technical Provisions Part and the Matching Adjustment Part), investment requirements (as set out in the Investments Part) and governance requirements (as set out in the Conditions Governing Business Part). Specific examples of when the assumptions would be relevant include:

- i. in respect of PRA rules that refer to the assumptions underlying the MA, such as the requirement for firms, as part of their risk management systems, to regularly assess the sensitivity of technical provisions and eligible own funds to the assumptions underlying the calculation of the MA, including the calculation of the FS, and the possible effect of a forced sale of assets;¹⁷
- ii. when determining whether a firm's MA portfolio is invested and managed in line with the PPP (Chapters 2 and 3 of the Investments Part);
- iii. as factors that the PRA expects firms to consider when determining any appropriate FS additions and safeguards in respect of assets with highly predictable (HP) cash flows (Rule 4.16 and Chapter 8 of the Matching Adjustment Part);
- iv. as factors that the PRA expects firms to consider as part of the attestation process (Matching Adjustment 9); and
- v. as factors that the PRA expects firms to consider when determining if any additions in accordance with Matching Adjustment 4.17 (and regulation 6(9) of the IRPR regulations) are appropriate to ensure that the FS reflects risks retained by the firm.

1A.7 If a firm concludes that its MA portfolio has a risk profile that is not consistent with the assumptions set out in paragraphs 1A.3 to 1A.5 above, then the PRA expects it to take remedial action. This includes making additions to the FS (as noted above), making changes to the management and governance of the MA portfolio (eg changes to investment policies) and/or removal of certain assets from the portfolio. The actions that a firm chooses to take will depend on the specific reasons for the deviation.

¹⁷ Conditions Governing Business 3.2(2)(a).

2: Asset eligibility

2.1 Permission for use of the MA is subject to the MA eligibility conditions, including conditions for the assets and matching liabilities to which the MA is applied. This chapter sets out the PRA's expectations in relation to those MA eligibility conditions that are applicable to assets in the MA portfolio (referred to in this chapter as 'the MA asset eligibility conditions').

2.2 The MA eligibility conditions define the features that the asset portfolio, and in some cases the individual assets within it, must have. These features, together with the ability to identify, measure and manage the risks of an individual asset, and of the MA portfolio, in accordance with the requirements of the PPP,¹⁸ determine eligibility, not the notional class to which the asset (or group of assets) belongs. For this reason, there is no prescribed 'closed list' of eligible assets for MA purposes. Instead, the PRA expects firms to be able to demonstrate at the point of application, and on a continuous basis, that their portfolios satisfy the MA asset eligibility conditions.

2.3 The PRA will review each asset portfolio on a case-by-case basis as part of the MA permission process, taking into account the evidence provided by the firm in its application.

2.4 For the purposes of demonstrating satisfaction of the MA asset eligibility conditions, the PRA expects a firm to consider all the features of the assets against all of the relevant MA asset eligibility conditions, not just the condition(s) that the firm considers to be most material.

Screening process

2.5 The PRA expects firms to have a robust screening process in place to identify those asset features that could affect MA eligibility.

2.6 Firms should review the relevant terms and conditions or prospectuses. Where reliance is being placed on third-party data providers, firms should perform validation checks, for example by comparing against another set of external data or by examining a random sample of prospectuses.

2.7 [Deleted with the first sentence moved and modified to form part of paragraph 9.1A]

¹⁸ Chapters 2 and 3 of the Investments Part.

Credit quality

2.7A The MA eligibility conditions include that the credit quality of the assets in an MA portfolio must be capable of being assessed through a credit rating¹⁹ or the undertaking's internal credit assessment of a comparable standard. A firm should be able to demonstrate that the assets included in its MA portfolios meet with the relevant requirements of Chapter 7 of the Matching Adjustment Part and the expectations set out in SS3/17. Considering how internal credit assessments would compare against issue ratings that could have resulted from a credit rating agency (CRA),²⁰ including appropriate independent external assurance, should act as a useful check and balance alongside the validation and assessment of the ongoing appropriateness of the internal credit assessment process.

Management in accordance with the PPP

2.7B Matching Adjustment 2.2(6) sets out the MA eligibility condition that the relevant portfolio of assets, and each individual asset contained in it, must meet the requirements of the PPP. Firms are expected to assess their compliance with this eligibility condition having regard to the PRA's expectations set out in SS1/20. In particular, a firm will need to determine if it can properly identify, measure and manage the risks on the assets in which it is invested or is considering investing in.

Pairing or grouping of assets

2.8 Regulation 4(7) of the IRPR regulations requires that the asset portfolio's expected cash flows replicate each of the expected liability cash flows in the same currency. The PRA does not consider that this requires individual assets to be denominated in a particular currency, provided that replication can be demonstrated by considering the cash flows of assets in aggregate. The PRA's view is that the requirement in regulation 4(3) of the IRPR regulations that the portfolio must consist of 'bonds or other assets with similar cash flow characteristics' could also be satisfied by considering relevant pairings or groupings of assets. For example, a foreign currency bond with an appropriate currency swap could be used in combination to generate a cash flow in the relevant currency of the liabilities.

2.9 In the case of pairings or groupings of assets, firms should consider carefully how any such arrangements satisfy all the relevant requirements, including whether the assets on a paired or grouped basis satisfy all the MA asset eligibility conditions and result in fixed cash flows, and whether such arrangements comply with the requirements on risk management

¹⁹ See regulation 2(1) of the IRPR regulations for the definition of 'credit rating'.

²⁰ See regulation 2(1) of the IRPR regulations for the definition of 'credit rating agency'.

and on the PPP. This includes considering the reliability and predictability of such arrangements under stressed conditions.

2.10 For example, for the purposes of assessing the eligibility of assets paired with derivatives, this would include firms identifying any break clauses that allow the counterparty to change the cash flows at its option and, if so, whether the terms provide sufficient compensation within the meaning of regulation 4(9)(c) of the IRPR regulations.

2.11 The PRA expects firms to consider carefully, and be able to justify, the method by which pairing or grouping arrangements have been reflected in the assessment of matching and the calculation of the MA. For example, firms should be able to explain whether all the individual elements of an arrangement have been de-risked and mapped to FSs separately, or whether instead the combined asset has been de-risked and mapped onto a single FS.

2.12 [Deleted]

Assets with highly predictable (HP) cash flows

2.12A Chapter 5 of the Matching Adjustment Part (supplementing, in accordance with the IRPR regulations, the eligibility condition set out in regulation 4(9)(a) of the IRPR regulations) allows a limited exception from the requirement that the cash flows of the relevant portfolio of assets must be fixed and not capable of being changed by the issuers of the assets or any third parties. This exception is available where the risks to the quality of matching are not material, and provided that only a limited proportion of the relevant portfolio of assets (as the PRA may determine) is affected (see regulations 4(9)(a) and 7(b) of the IRPR regulations). The PRA considers that in order for firms to be able to demonstrate that the risks to the quality of matching are not material, the asset cash flows must at least be contractually bound. The MA asset eligibility conditions therefore include a requirement that such asset cash flows must pay contractual sums with a bounded range of variability over both amounts due, and the timing of payments (Matching Adjustment 5.3 and 5.4). The PRA considers that where asset cash flows are not fixed, contractual bounding is achieved where the legal documentation underlying a bond or loan sets out a finite range for the cash flow timings and amounts, for example:

- the cash flow profile (with the payment dates and amounts, or how the cash flow amounts are to be calculated);
- the situations where the cash flow profile may, or must, be varied by the issuer; and
- where the cash flows can be varied, the amount and timing of the varied cash flows.

2.12B Firms, however, are still expected to consider the risks to the quality of matching even though the asset cash flows are contractually bound, and to be satisfied that such risks are not material. Consistent with the PPP, the PRA expects firms to consider whether the limited

range of the bounded cash flows paid on the assets makes them suitable to match the nature of the liabilities in the MA portfolio. For example, an asset may meet the MA eligibility condition for bounded cash flows, but where very significant variations in cash flows are contractually permitted, the asset may not be suitable to match annuity liabilities.

2.12C Some assets may incorporate contracts that do not specify upper bounds on the cash flow amounts, such as leases with upward-only rent increases. The PRA considers that the upper bounding of cash flow amounts for such assets may be demonstrated through the use of appropriate assumptions for the rate of any future escalation. For any such asset, where a firm assumes increases that are above the contractual minimum, the PRA expects the firm to assess the risks to the quality of matching, having regard to the economics of the asset.

2.12D In this SS, the assets meeting the criteria referred to in paragraph 2.12A above (which firms can demonstrate do not present a material risk to the quality of matching (see Chapter 4 of this SS)) are referred to as assets with HP cash flows. The proportion of the portfolio with HP cash flows is limited in aggregate to creating 10% of the MA benefit for the MA portfolio, as set out in PRA Rule Matching Adjustment 5.2, and may also be subject to additional safeguards in order to manage and mitigate the additional risks introduced into the MA portfolio (see paragraph 5.18 of this SS).

2.12E The PRA is aware that some assets could either be considered to have HP cash flows, or could be considered to have fixed cash flows provided firms apply the expectations in the following sections, for example by partially recognising the assets' cash flows, or by recognising the lowest amount and/or payment at the latest date. Where firms apply the expectations in the following sections and treat such assets as having fixed cash flows, these assets would not be considered to be part of the limited proportion of the portfolio with HP cash flows. The PRA considers that decomposing any asset within the MA portfolio into separate fixed and HP cash flow components would not be consistent with the MA eligibility conditions. In relation to the movement of assets between a fixed and an HP cash flow treatment the PRA considers that this may be reasonable where:

- the firm has permission to apply the new treatment for a particular asset;
- the firm manages the assets in line with its MA permission, including applying an FS addition (where moving from 'fixed' to HP) and considering the implications for the attestation;
- changes in treatment are subject to the firm's policies on managing the MA portfolio such that they are subject to an appropriate level of governance and oversight;
- frequent changes in treatment for individual assets are subject to justification; and
- the firm carefully considers the operational implications before applying different treatments to holdings of the same asset.

Fixed cash flows

2.13 Other than for the limited proportion of the portfolio of assets with HP cash flows, firms will need (in accordance with regulation 4(9) of the IRPR regulations) to be able to demonstrate that the overall cash flows from the remaining proportion of the portfolio are fixed in terms of timing and amount, and cannot be changed by the issuers of the assets or any third parties. For this purpose, it is not sufficient for a portfolio of assets to provide cash flows that are predictable in aggregate to a very high degree.

2.14 In addition to the limited exception for assets with HP cash flows, the MA eligibility conditions set out two exceptions to the requirement that the cash flows at the level of the portfolio be fixed. This is where firms have used:

- inflation-linked assets to match the cash flows of inflation-linked obligations in an MA portfolio (regulation 4(9)(b) of the IRPR regulations); or
- assets with cash flows that may be changed at the request of the issuer or a third party, provided that in such an event the firm receives sufficient compensation to allow it to obtain the same cash flows by re-investing in assets of an equivalent or better credit quality (regulation 4(9)(c) of the IRPR regulations).

Partial recognition of an asset's cash flows

2.15 For assets that produce both fixed and non-fixed cash flows, where a firm considers such an asset to have fixed (rather than HP) cash flows, the PRA considers that this would not necessarily be excluded under the MA asset eligibility conditions in cases where only the fixed cash flows are taken into account for the purpose of demonstrating cash flow matching. For example, firms may be able to demonstrate that the cash flows from callable bonds up to the first call date are fixed, thus allowing them to be recognised partially in the demonstration of cash flow matching (provided that the asset also meets the other MA asset eligibility conditions).

2.16 In cases where only part of an asset's cash flows are taken into account for the purposes of demonstrating cash flow matching, firms should attribute the full market value of the asset to an MA portfolio, and take the full asset value into account when calculating the MA in accordance with Chapter 4 of the Matching Adjustment Part.

2.16A Where firms include assets in the MA portfolio where the full investment is not made at the point of purchase, the PRA expects that the MA benefit on such assets will only be recognised where the MA portfolio includes a provision for the future investment sums, and these sums are considered in both the liquidity plan and in assessing risks to the quality of matching.

Redemption or termination clauses

2.17 The PRA understands that many bonds (and other assets with similar cash flow characteristics) will be subject to terms and conditions that allow the issuer of the asset to redeem or terminate the contract prior to maturity.

2.18 The PRA considers that the requirement in regulation 4(9) of the IRPR regulations that 'the cash flows of the assigned portfolio of assets must be fixed and not capable of being changed by the issuers of the assets or any third parties' does not necessarily disqualify all assets that are subject to early redemption or termination rights at the option of the issuer or a third party.

2.19 Certain categories of early redemption or termination rights would clearly not meet the eligibility criterion for fixed cash flows in regulation 4(9) of the IRPR regulations, for example rights of redemption or termination that are entirely at the discretion of the issuer or third party (subject to the exception in regulation 4(9)(c) of the IRPR regulations).

2.20 However, there are other categories of rights of redemption or termination that the PRA considers are less likely to undermine the need for predictability of cash flows that underlies the requirement in regulation 4(9) of the IRPR regulations - in particular, rights of early redemption or termination at the option of the issuer that are only triggered by events that are outside the control of, and cannot be avoided by, the issuer, and where such events would arguably change the nature or substance of the underlying contract. For example, corporate bonds will typically be subject to early redemption at the option of the issuer in the event of a tax change that results in the issuer having to pay additional amounts under, or as a result of, the bond. It is also typical for index-linked bonds to contain early redemption rights at the option of the issuer where the relevant index is no longer available.

2.21 In light of the points above, when making arguments for the inclusion of an asset within an MA portfolio as an asset with fixed cash flows, the PRA expects firms to demonstrate that any right of redemption or termination is not at the unfettered discretion of the issuer or third party, but is triggered only by events that:

- are outside the issuer or third party's control;
- cannot be avoided by the issuer or third party; and
- would otherwise materially change the nature or substance of the obligations of the issuer or counterparty under, or as a result of, the contract.

2.22 Further, the PRA expects firms to demonstrate that they have considered the extent of reinvestment or other risks posed by any such redemption or termination rights, and have considered whether and how these could be mitigated. Such consideration should form part of a firm's own risk and solvency assessment (ORSA).

Extension on default clauses

2.23 The PRA would expect the matters in paragraph 2.21 above also to be relevant in assessing the eligibility of assets with extension on default clauses, particularly with respect to the trigger for the extension of cash flows under such clauses.

Reinsurance assets

2.24 The PRA considers that reinsurance assets may be included as assets with fixed cash flows in an MA portfolio without relying on the limited exception of assets with HP cash flows, provided that firms can demonstrate the following:

- any variation in timing, duration and/or quantum of cash flows from the reinsurance asset (that is not otherwise captured by the MA eligibility conditions) is solely attributable to, and reflects, the variation in the timing, duration and/or quantum of cash flows of the underlying (re)insurance obligations that are covered by the reinsurance asset;
- the cash flows of the reinsurance asset replicate the cash flows of the underlying (re)insurance obligations covered without giving rise to material mismatch risk;
- the insurance and/or reinsurance obligations that are covered under the reinsurance asset are properly included in an MA portfolio (ie they satisfy all the relevant MA eligibility conditions);
- the reinsurance asset satisfies all the other MA eligibility conditions (including that it is structured in such a way that it produces cash flows with similar characteristics to the cash flows of bonds); and
- the inclusion of the reinsurance asset in an MA portfolio is consistent with the assumptions underlying the MA as set out in Chapter 1A of this SS, in particular that it is consistent with the assumption that insurance and reinsurance undertakings will hold the matching assets to maturity.

2.25 The PRA expects that, as a minimum, firms would be able to provide a similar demonstration for any other asset where cash flows vary with the underwriting risks set out in the MA eligibility conditions.

2.26 For the purposes of calculating the MA and satisfying the MA eligibility conditions (including cash flow matching), firms should risk adjust the reinsurance cash flows on the basis of Technical Provisions 11.1. The adjustment made for the purposes of the MA

calculation should be the same as that made for the purposes of calculating the value of the reinsurance recoverable. For the avoidance of doubt, the PRA does not expect firms to map the reinsurance to an FS.

Cash flows dependent on certain risks

2.27 Assets with cash flows that depend on risks that are not included in the underwriting risks referred to in the MA eligibility conditions are unlikely to be eligible for inclusion in the MA portfolio as assets with fixed cash flows; if a firm intends to include these in the limited proportion of assets with HP cash flows then they must meet the MA eligibility conditions that are applicable to assets with HP cash flows.

Use of foreign exchange (FX) forwards

2.28 The PRA considers that the paired or grouped assets that result from using FX forwards to hedge non-sterling bond exposures do not provide fixed cash flows because, in their current form, the cash flows on these paired or grouped assets are only contractually fixed for a few months rather than over the full duration of the underlying bond. Therefore, they are unlikely to satisfy the MA eligibility conditions. Where short-dated FX forwards are paired with maturity matched short-dated assets then they may meet the MA eligibility conditions.

2.29 The PRA does not consider that the rolling of the forwards on expiry, combined with the purchasing or selling of the underlying bonds (ie rebalancing), together produce fixed cash flows over the full duration of the bonds. Such an interpretation depends on two significant assumptions: regular rolling and rebalancing of an MA portfolio; and reliance on the firm's continuing ability over a long time period to access the FX forward markets.

2.30 Relying on such assumptions is not consistent with the MA eligibility conditions for an MA portfolio of assets to have fixed cash flows. The relevant portfolio of assets may change only in limited circumstances that are out of the control of the firm (eg on early repayment of an asset where consistent with the MA eligibility conditions, or where expected liability cash flows have materially changed due to, say, changes in underlying longevity assumptions). The PRA considers that these circumstances do not encompass the use of assumed management actions or rebalancing on the potentially significant scale that would be needed to overcome the maturity mismatch between firms' foreign currency bonds and the associated short-term forwards. The PRA also considers that a reliance on regular rolling of FX positions and continued access to FX forward markets is not consistent with either: (i) the contractual bounding requirement for assets with HP cash flows; or (ii) the requirement that assets with HP cash flows must not present a material risk to the quality of cash flow matching.

2.31 The PRA notes that some other strategies to hedge currency exposure, and specifically the use of significantly longer-dated cross-currency swaps, would be more consistent with the MA eligibility conditions. Firms seeking to include foreign currency assets in an MA portfolio should explore longer-dated cross-currency swaps or other approaches including potential portfolio restructures.

Cash flows with uncertain but bounded timing

2.32 The PRA is aware that some assets will contain cash flows where the timing is uncertain but is bounded, for example final redemption payments on callable bonds, or bonds where the timing at which repayments start can vary within a contractually bounded period. The PRA will assess firms' applications to include such assets as meeting the fixed cash flow requirement on a case-by-case basis. Firms could also consider whether the assets meet the criteria for HP cash flows as set out in paragraphs 2.12A and 2.12D above and, if so, include them in the MA portfolio as part of the limited proportion permitted for these assets.

2.33 The PRA's view is that, in addition to recognition of cash flows up to the first call date (as set out in paragraph 2.15 above), firms may also be able to demonstrate that the redemption payment from a callable bond can be regarded as being fixed (provided that the asset also meets the other relevant MA eligibility conditions) if, for the purposes of demonstrating matching, it is only recognised at its final redemption date (and provided that such a fixed date is specified in the bond's contractual terms).

2.34 For bonds where the start of repayments is uncertain but there is a fixed latest point (and provided that such latest date is specified in the bond's contractual terms), for example bonds with an initial construction phase or sinking fund assets, then subject to other relevant MA eligibility conditions being met, firms may be able to demonstrate that cash flows are fixed for the purposes of matching liabilities, if the cash flows are recognised at their latest date. The fixed amounts should not include any amount contingent on the timing of the cash flows, ie cash flows must be certain to be available to meet the matched liabilities; for example, any additional interest payments that result from a later start date of repayment would not be considered to be 'fixed'. Firms should also be able to demonstrate how cash flows received at an earlier date will be invested so that they will be available to meet the liability cash flows as assumed in the matching assessment.

2.35 In considering alternative treatments for assets with uncertain cash flow timing but included in the fixed cash flow part of the MA portfolio to that set out in this section and the section on partial recognition, for example a 'yield to worst' approach, a firm should note that where assumptions need to be made about the future cash flows it will receive on an asset, this may expose the firm to the risk of these assumptions changing over time and to the risk of actual cash flows being lower than assumed. The PRA considers that, unless properly managed, both of these risks would pose an obstacle to the firm being able to demonstrate

that the asset should be considered as having fixed cash flows, in which case the additional controls for assets with HP cash flows as set out in Chapters 4 and 5 of this SS would need to be met in order for the asset to be included in the MA portfolio.

Cash flows dependent on realisable asset values

2.36 Where a cash flow is directly dependent on the realisable value of property or other asset(s), the PRA considers that such uncertain cash flows should not generally be regarded as presenting an immaterial risk to the quality of cash flow matching even where a firm proposes only to recognise a prudent estimate of the realisable value.

Cash flows on sub-investment grade assets

2.36A For sub-investment grade exposures, firms should carefully consider whether the cash flows they expect to receive from these assets can be sufficiently relied upon for the purposes of cash flow matching. In doing this, the PRA expects firms to have regard to the higher expected level of defaults compared to investment grade assets and the consequent uncertainty in the cash flows as well as the other additional risks that may be associated with such assets. The PRA expects firms to take these considerations into account when determining whether inclusion of such assets in the MA portfolio is in line with the PPP.

Sufficient compensation

2.37 For the purposes of the derogation in regulation 4(9)(c) of the IRPR regulations (mentioned in paragraph 2.14 above as the second exception), where firms are including assets as part of the fixed cash flows portion of the MA portfolio, they must be able to demonstrate clearly that the compensation they would receive in the event of a change in the cash flows would allow them to obtain the same cash flows by reinvesting in assets of equivalent or better credit quality. The PRA considers that firms may be able to satisfy this MA eligibility condition by being able to demonstrate that sufficient compensation will be received on the basis of an adequate contractual compensation clause. In assessing adequacy of compensation, the PRA expects firms to take into account whether relevant insurance or reinsurance obligation cash flows would continue to be matched out of assets acquired with the compensation payable.

2.38 Where firms rely on a compensation clause in the form of a standard²¹ Spens clause (or equivalent), the PRA expects firms to be able to demonstrate that the:

- reference gilt (or other suitable asset) used is suitable given, for example, the term to maturity of the asset in question; and/or

²¹ Here, 'standard' is taken to mean that the remaining cash flows are discounted using a reference gilt rate.

- remaining cash flows that are discounted correspond to those assumed in the demonstration of cash flow matching.

2.39 Where firms rely on modified Spens clauses (or equivalent), one method of assessing the impact of make-whole clauses on a firm's assets would be for the firm to determine a maximum make-whole spread such that cash flows on assets with make-whole spreads in excess of this maximum would not be considered to be fixed for the purposes of cash flow matching.

2.40 The PRA expects firms to put in place robust governance arrangements around assessing the adequacy of compensation, including determining maximum make-whole spreads, and expects a firm to notify its supervision team of any changes to these sufficiency criteria.

2.41 The PRA's view is that it may be possible for firms' criteria for assessing 'sufficient compensation' to be devised by reference to the relevant MA liabilities being matched by the recognised asset cash flows, together with the ability to purchase an asset of at least as good quality as the original to replace these cash flows in the event they are changed by the issuer, ie to ensure that this matching continues. The PRA expects a firm to be able to demonstrate the same level of confidence in its ability to replace cash flows as in its assessment in paragraph 2.39 above. This may, in practice, mean that the firm would recognise part of the asset's cash flows up to the level of contractual compensation payable, subject to the considerations relating to partial recognition set out in paragraphs 2.15 to 2.16A above.

2.42 The PRA expects firms to consider how their own criteria for assessing 'sufficient compensation' cater for foreseeable events such as an asset being upgraded. The PRA considers that in such upgrade events, a firm would not necessarily need to remove the asset from the MA portfolio, if its own criteria provide for this (and to the extent that those criteria were effective in assessing whether compensation would be sufficient, taking into account paragraph 2.37 above). For example, where sufficiency of compensation criteria follow the approach described in paragraph 2.41 above, the firm might continue to recognise the asset's cash flows up to the level of the compensation payable, ie so that the asset's compensation would remain sufficient to replace the cash flows needed to match relevant MA eligible liabilities.

2.43 In addition to being able to demonstrate the suitability of the reference gilt used in both standard and modified Spens clauses, firms should also be able to demonstrate that:

- The adequacy of the compensation clause or maximum make-whole spreads has been assessed at a suitable level of granularity. For example, an assessment only at the asset class level (as opposed to further subdivisions by rating and duration)

should have strong justification. Where holdings of individual assets are material, firms should carry out this assessment at asset level.

- Explicit consideration has been given to the impact of asset spread narrowing and/or gilt spread widening scenarios on the sufficiency of the compensation. The scenarios considered should be extreme enough to allow the firm to be able to demonstrate that there is negligible risk of the modified Spens clause not providing sufficient compensation in the future.
- There is sufficient liquidity in the market (taking into account stressed conditions) to be able to buy an asset of the same class and credit quality with the compensation provided, or if not, that the compensation is otherwise sufficient (for example, it is sufficient to buy a corporate bond of the same or higher rating).

2.44 The PRA accepts that there is a range of possible approaches that can be used to calibrate the maximal spreads. The PRA considers that scenario testing would provide a useful sense check as well as a means of ensuring a consistent standard is applied across firms. For example, the PRA would expect firms to investigate a scenario where spreads return to historically low levels over the period for which spread data is readily available and appropriate to the exposures in question and consider whether compensation would be sufficient in that case. Firms should consider explicitly such a scenario test in arriving at their maximum make-whole clauses.

2.45 Firms should also take into account the following in calibrating the maximal spreads:

- where firms are using index data in their analysis it should be noted that while there is no requirement to replace cash flows using the 'average' bond that the index represents, equally firms should not rely on being able to replace cash flows with the cheapest bond in the index;
- in assessing whether sufficient replacement assets are available to replace cash flows, firms should confirm that the replacement assets under consideration would be MA eligible;
- the maximum make-whole clauses should be kept under active review to ensure that any new purchases of assets with prepayment options would provide adequate compensation; and
- firms should consider carefully the impact of extreme spread-narrowing scenarios beyond those considered in setting their maximum make-whole spreads. These scenarios should also involve consideration of wide-scale upgrading of asset ratings. The risk of mass early redemptions in such scenarios should be explicitly considered in firms' ORSAs, along with their plans to manage or mitigate the risk in these extreme scenarios.

2.46 If there is no make-whole clause as described above, an alternative arrangement may be appropriate if it has an equivalent effect. However, firms should be able to demonstrate

that the arrangements are effective and firms should also take account of the considerations set out above.

Equity release mortgages (ERMs)

2.47 It is not possible to give a definitive view on the MA eligibility of ERMs as an asset type because of the wide variation in the features that such assets possess. However, some features are common to most investments in ERMs, such as cash flows that depend on longevity, morbidity, the realisable value of property (where the mortgage contains a No Negative Equity Guarantee (NNEG)) and exposure to prepayment risk. In the PRA's view, an asset with this combination of features is unlikely to be compatible with the general requirement for fixed cash flows (regulation 4(9) of the IRPR regulations). The PRA expects firms to consider whether ERMs can meet the other MA eligibility conditions including the requirements for credit rating/credit assessment. Where firms take the view that ERMs are not compatible with the general requirement for cash flows to be fixed, firms should consider the additional requirements for assets with HP cash flows together with the materiality of the risk to the quality of matching from the ERM cash flows, and therefore whether such ERMs can be included in the MA portfolio under the limited proportion of assets with HP cash flows. Where this is not possible, the PRA expects that firms will need to undertake restructuring, pairing or grouping of assets to transform the cash flows of ERM assets into an eligible format. For the avoidance of doubt, the PRA does not have a preference for the way in which firms choose to restructure their ERM assets for the purposes of satisfying the MA eligibility criteria.

Cash items

2.48 Although it may be possible to demonstrate that cash items are compatible with the MA eligibility conditions, the PRA does not consider that expected future cash interest can satisfy these eligibility conditions unless paired or grouped with a suitable contract. Future cash interest payments will depend on a number of variables, and the variability and uncertainty of future cash interest are likely to be incompatible with the requirement for cash flows to be fixed, and with the requirements for HP cash flows (including in particular that risks to the quality of matching are not material) (see regulations 4(7) and 4(9) of the IRPR regulations).

2.49 In considering whether to include cash items in an MA portfolio, firms should assess carefully and be able to demonstrate their compliance with all other relevant requirements, including the requirements for risk management and the PPP.

Collective investment schemes

2.50 Where a firm proposes to include holdings in collective investment schemes or mutual funds within the relevant portfolio of assets, the PRA expects the firm to 'look through' to the

underlying assets and be able to demonstrate that these meet all of the MA asset eligibility conditions.

2.51 Further, firms should be able to demonstrate that, notwithstanding that the assets are held within a collective investment scheme or mutual fund structure rather than held directly, this does not in any way compromise the firm's ability to ensure that the underlying assets are managed in a way that satisfies the MA eligibility conditions. For example, the firm needs to be able to demonstrate that the collective investment scheme or mutual fund would not have discretion to invest in assets that are not eligible for the MA.

Asset restructuring

2.52 The PRA recognises firms may undertake certain risk transformation transactions in order to obtain a portfolio of MA eligible assets. In particular, firms may be entering into securitisation transactions or putting in place hedging arrangements, specifically to secure compliance with the MA eligibility conditions. A firm that engages in such restructuring, pairing or grouping of assets should discuss its plans with its supervisor at the earliest opportunity and should also be considering contingency options in case it is not possible to transform the asset cash flows in a way that meets the eligibility criteria.

2.52A The PRA considers that the MA eligibility conditions will not be met where a firm proposes to define a notional part or fraction of the cash flows of an asset to match liabilities within the MA portfolio (and in the calculation of the MA). In particular, the credit quality of such cash flows is unlikely to be capable of being assessed through a credit rating or the undertaking's internal credit assessment of a comparable standard. This is distinct to the guidance set out in paragraphs 2.15 and 2.16 above where a rating would be assessed for the full asset in the MA portfolio, but only a subset of (fixed) cash flows would be used to match liability cash flows. The PRA also considers that a notional, non-contractual identification of cash flows is unlikely to be consistent with the requirement to maintain the relevant portfolio of assets over the lifetime of the insurance obligations (regulation 4(5) of the IRPR regulations). Where firms are planning to use restructuring arrangements, these should therefore be legally contractually executed and any resulting bond or loan to be included in the MA portfolio must meet the MA asset eligibility conditions.

2.53 The PRA reminds firms that, as part of the MA eligibility conditions, they are required to demonstrate compliance with the PPP, and are also expected to assess carefully, and to be able to demonstrate, their compliance with the requirements for risk management. In particular, firms are expected to be able to identify, measure and manage risks within their asset portfolios, to invest in the best interest of all policyholders and beneficiaries, including managing potential conflicts of interest, and only to use derivative instruments where they genuinely contribute to a reduction in risk or facilitate efficient portfolio management.

2.54 The PRA expects firms to consider carefully the prudence of any transactions or arrangements they enter into for the purposes of the MA, including their behaviour under stress, and whether the associated risks are well understood and appropriately managed. Securitisation transactions, for example, can vary in their features, and firms should refer to initiatives of international bodies and evolving standards including in legislation to understand the features that underpin high-quality securitisations. Firms should also have considered any new risks generated by risk transformation arrangements, such as counterparty exposure, and how to account for these. In all considerations about asset eligibility, one of the key questions the PRA expects a firm to consider is whether it is exposed to the risk of changing spreads on the underlying asset, which would risk the firm being unable to employ a hold-to-maturity investment strategy thus running contrary to the assumptions underlying the MA.

2.55 Restructuring of assets through a subsidiary company set up for this purpose and wholly owned within the insurance group, ie a special purpose vehicle (SPV),²² may be acceptable, provided that proposals comply with applicable MA eligibility conditions. It is important, however, that the restructure is appropriately recognised within the firm and the group, including any changes in the risk profile of entities affected by the asset transformation. Given the additional complexity and consequential risks that restructuring gives rise to, the PRA's expectation is that these arrangements will only be used in cases where firms have not been able to identify a viable alternative approach, for example pairing/grouping, or partial recognition of cash flows.

2.55A The PRA considers that firms may create MA eligible mezzanine notes as part of a restructuring, where those notes have HP cash flows. Such notes would count towards the overall 10% of MA benefit limit for assets with HP cash flows. The PRA expects that the FS addition for such assets would normally be assessed using a more sophisticated approach that compares the asset to a fixed cash flow alternative.

2.55B The PRA expects that firms will generally include MA eligible assets, whether with fixed or HP cash flows, in MA portfolios without restructuring. Where a firm restructures MA eligible assets, and then makes an application to include eligible note(s) from such a restructure in an MA portfolio, the PRA expects that the firm will additionally explain the reasons for the restructure and how it is satisfied that the level of MA benefit is appropriate. The PRA will consider these applications on a case-by-case basis. The firm will also need to be able to demonstrate that it has sufficient data to model the exposure to the cash flow variability risks so that the notes issued by the restructuring arrangement can be relied on as having fixed cash flows. The PRA expects that the aggregate value of a restructuring arrangement, including the MA benefit from the notes issued by the subsidiary company and

²² See also SS8/17 – Authorisation and supervision of insurance special purpose vehicles (December 2022): www.bankofengland.co.uk/prudential-regulation/publication/2017/authorisation-and-supervision-of-insurance-special-purpose-vehicles-ss.

the value of any residual interest in the company, would not generally exceed the value that would result from including the assets directly in the MA portfolio. Where the firm considers that value has been created by restructuring, the PRA expects it to be able to explain how this has arisen and to be able to demonstrate that any value enhancement has been created on an arm's-length basis (and not, for example, from the use of a liquidity facility for which the SPV is paying below a market rate).

2.56 The extent to which transactions within the insurance group (including loans or derivatives) can be used to restructure assets in order to include them in the MA portfolio depends on whether the restructured assets thereby created can satisfy the MA eligibility conditions. The PRA expects firms to have regard to the underlying assets being restructured when they consider whether the MA eligibility conditions will be satisfied. The PRA would not expect firms to apply arrangements as set out in paragraph 2.55 above, or arrangements that in substance have that effect, to assets that, in unstructured form, would in any event not meet all applicable Solvency II requirements, including those of the PPP. The PRA notes that some assets by their very nature may have characteristics that make it infeasible to restructure them as MA eligible assets, and expects firms to be able to demonstrate that sufficient reliance can be placed upon restructuring arrangements to ensure the continuing satisfaction of the MA eligibility conditions.

2.57 The PRA's expectations set out in paragraph 2.9 above, in relation to the pairing or grouping of assets, apply equally to asset restructurings.

2.57A Where assets are restructured, the PRA expects that any extension clauses would satisfy the PRA's general expectations in paragraph 2.21 above (where applied to extension clauses instead of redemption or termination rights).

2.58 In assessing the suitability of arrangements set out in paragraphs 2.55 to 2.56 above in this context, the PRA expects firms first to consider whether the unstructured asset is likely to remain appropriate over time, consistent with the duration of the restructuring arrangement, and as operating conditions might change. Examples of assets that may not be a suitable match for the liabilities of the MA portfolio include:

- ERM with a NNEG with a high loan-to-value ratio, or written to younger age borrowers. These may be riskier assets, and over time may be more similar to a property investment than a bond, and therefore may not be a suitable match for the liabilities of the MA portfolio; and
- arrangements where an SPV does not have sufficient assets to meet future funding commitments to complete an investment that will be used to secure cash flows on the notes issued by the company.

The PRA expects that any subsequent deterioration in the quality of the underlying assets, for example following a stress event, should be reflected through the regular process of

reviewing and updating the rating of the restructured asset. Firms would not be expected periodically to remove underlying assets from the structure.

2.59 For the purposes of demonstrating the reliability and efficacy of such arrangements, the PRA expects firms to be able to demonstrate (among other things):

- the arrangements will not give rise to conflicts of interest and will be subject to transparent and robust governance arrangements that afford sufficient certainty that the transaction will deliver the promised fixity of cash flows;
- there is a robust rating process of the SPV (or any notes issued by the SPV), including total return swaps (TRSs), to provide sufficient assurance that the required fixity of cash flows will be delivered and the rating is a factor in the MA benefit claimed; and
- the arrangement is in line with the relevant requirements on risk management and the associated requirements under the PPP.

2.60 For example, a TRS paired with a loan asset having variable cash flows could not be relied upon to ‘cure’ the failure of such an asset to satisfy the MA eligibility conditions relating to fixed cash flows unless the arrangement provides sufficient assurance that the promised fixity of cash flows will in fact be delivered. The PRA considers that a TRS transaction entered into with an unfunded, unrated and unregulated SPV would be unlikely to provide sufficient assurance as to the SPV’s sustained ability to satisfy its obligations to make fixed payments under the TRS on an ongoing basis for the purposes of MA eligibility.

2.61 In the case of a transaction with an intra-group SPV, the PRA would also expect that robust and transparent governance arrangements are in place and that the transaction is made on an arms-length basis so as to ensure that there is no impairment of the SPV’s ability to make the required payments to the firm. These transactions include the arrangement of liquidity facilities from another group entity and the extraction of assets from the SPV by the group.

2.61A The PRA considers that where assets or pools of assets have previously been restructured to create an asset that met the ‘fixity’ requirement, firms may seek to include these in MA portfolios in an unstructured form as assets with HP cash flows, where they meet the MA asset eligibility conditions. The PRA considers that this would require a new MA application.

Group consolidation

2.62 Rule 11.1C of the Group Supervision Part of the PRA Rulebook requires group insurance and reinsurance undertakings to calculate the best estimates of liabilities (BEL) and consolidated group own funds net of any intra-group transactions. Where an asset portfolio has been restructured within an insurance group so that substantially all the risks

and rewards of ownership of the asset receivables remain within the same entity within the group, this raises the question whether, in fact, there is an intra-group transaction that would be required to be netted out upon group consolidation. In the case of an asset portfolio that has been restructured through a form of securitisation using a subsidiary company specifically set up for this purpose within an insurance group, and where all tranches of cash flows and the equity in the subsidiary are held by the same insurance entity (albeit that junior tranches are held outside the associated MA portfolio), it is likely that the arrangement would not be recognised as an 'intra-group' transaction, with the result that there would be no intra-group transaction to be netted out at group level.

Governance

2.63 Any restructuring of the assets for the purposes of transforming the assets into MA eligible cash flows should be appropriately reflected in firms' risk management frameworks. It is important that firms have in place, and are able to demonstrate, the necessary governance and expertise to manage any additional risks arising from the restructure, including the exposures to or within each of the SPV, the associated MA portfolio and the holder of the junior tranches and/or equity.

Rating and valuation of assets

2.64 As part of deriving the MA, it is anticipated that firms may seek to use internal credit assessments to assign a rating category. The PRA expects firms to be able to demonstrate that any internal credit assessment used meets the MA eligibility conditions and the expectations in SS3/17 as set out in paragraph 2.7A above.

2.65 Firms should take into account the Valuation Part of the PRA Rulebook and Chapter 7 of the Matching Adjustment Part and the PRA's SSs on valuation risk for insurers (SS9/14) and on illiquid unrated assets (SS3/17) when valuing and rating the assets. In addition, a firm should recognise the risk of valuation uncertainty within its ORSA and, where appropriate, allow for this risk in determining its capital requirements.

Liquidity facilities

2.66 If reliance is being placed on additional liquidity facilities to maintain the ability of the issuer to support the fixity of cash flows and the liquidity of the structure, the PRA expects a firm to be able to demonstrate, among other issues, that these facilities will be available over the expected lifetime of the SPV, as well as under stressed conditions. The PRA understands that in rating an SPV undertaking securitisations, external rating agencies would generally require liquidity providers for SPVs to be of high credit rating, with provisions for replacement on credit downgrade. Where the provider of the liquidity facility is internal and not externally rated, the PRA expects the firm to be able to explain and justify why any reliance on additional liquidity facilities is appropriate, including:

- stress testing of the availability of the liquidity facility to at least an equivalent degree to that which would be required of liquidity providers by rating agencies, including the likelihood of the liquidity facility no longer being available or being reduced;
- how the liquidity facility will operate in practice and, in particular, sufficient evidence that funds will be available if they are needed from an operational perspective; and
- how the liquidity facility will be managed so that it complies with the requirements (in regulation 4(6) of the IRPR regulations and Matching Adjustment 2.2(5)) for the MA portfolio to be separately organised and managed and not to be exposed to the risk of losses outside the MA portfolio (for example, if available liquidity were to be used to mitigate potential losses and therefore would not be available to support the fixed cash flows on notes issued by the SPV).

Future loans

2.67 If firms intend using the structure to include new loans in the future (including incremental drawdown on existing loans), the application for MA permission should set out the process for doing so. This should include an assessment of the volume of additional loans that will need to be accumulated before further tranches of notes of sufficient quality can be issued.

2.68 Firms should identify the sources of funding for any additional loans for the interim period ahead of the issuance of further tranches of notes, and consider how this complies with the relevant liquidity management policies.

2.69 The PRA expects a firm to be able to demonstrate that any assumption that an MA portfolio will make an advance commitment to purchase additional tranches of senior notes is compliant with the asset and liability management (ALM) and liquidity policies of an MA portfolio, including potential scenarios of closure or material restriction in volumes of new annuity business, and/or increase in additional drawdowns on existing equity release policies. Firms should consider whether a commitment fee should be made for such a facility.

Capital requirements

2.70 In cases where the restructure involves the pooling and transformation of cash flows from a defined set of underlying exposures into a series of 'tranches' of separate cash flows that are distinguished by an increasing scale of risk posed to the investor (from senior to junior tranche), the PRA considers that such a structure is, in substance, a securitisation. Following this approach, the calculation of the model-based capital requirements should consider the substance, rather than rely solely on the technical classification of the structure by product or securitisation type.

2.71 In the case of exposures to securitisation vehicles, firms proposing to use the standard formula to calculate the Solvency Capital Requirement (SCR) will need to treat the notes

issued by the SPV as a Type 2 securitisation where they fail to satisfy the criteria for Type 1 securitisations (for example, where they are unrated).

2.72 The PRA anticipates that given the bespoke nature of the (restructured) ERM investment, firms using the standard formula may wish to develop a partial internal model (PIM) for this risk exposure. The PRA anticipates this would be a situation in which use of a PIM would be appropriate, provided firms satisfy the relevant requirements to use a PIM.

2.73 For firms applying for permission to use an internal model, the PRA expects the asset transformation as a result of the restructure to be reflected in the model. This will require a comprehensive consideration of the risks of asset transformation as well as the underlying ERMs and any diversification restrictions between the associated MA portfolio and the rest of the entity or group. The PRA expects models will also make allowance for default, spread and concentration risks arising from investment in the notes issued by the entity.

2.74 For structures that result in the creation of junior or equity tranches or exposures, the PRA expects firms to hold capital appropriate for the specific nature of the investment, noting the long tail and expected volatility of the risk exposure.

3: Liability eligibility

3.1 This chapter sets out the PRA's expectations in relation to MA eligibility conditions that are applicable to liabilities in the MA portfolio.

3.2 To demonstrate that the liabilities satisfy the relevant MA eligibility conditions, a firm should produce a comprehensive breakdown of its liabilities and should identify all policyholder options and relevant contractual terms (such as the ability of the policyholder to surrender their policy, or the potential for future premium adjustments). A high-level description of the liabilities would generally not be sufficient to enable the PRA to assess compliance with the relevant conditions.

3.3 [Deleted]

3.4 For the purposes of demonstrating compliance with MA eligibility conditions that are applicable to liabilities, firms are expected to consider all the features of the liabilities against all the relevant conditions, not just the condition(s) that the firm considers to be most material.

Mortality risk

3.5 The PRA expects firms to be able to provide quantitative evidence to demonstrate compliance with the mortality risk threshold in Matching Adjustment 2.2(3).

Guaranteed components of with-profits

3.5A Matching Adjustment 2.3 sets out that a component of a with-profits annuity contract may be eligible for inclusion in an MA portfolio, provided that the component is legally established and identifiable as guaranteed within an insurance contract, is capable of being organised and managed separately in accordance with regulation 4(6) of the IRPR regulations, and otherwise meets the MA eligibility conditions. The PRA expects that for a firm to include such components of liabilities within an MA portfolio, it will provide a detailed assessment to demonstrate that the only elements of the liabilities included are contractually guaranteed and are not dependent on future premiums or future investment performance. The PRA also expects that the firm should set out a clear policy regarding the addition of future attaching bonuses in the MA portfolio or elsewhere.

Income protection

3.5B Matching Adjustment 2.2(2) specifies that the permitted underwriting risks connected to the portfolio of liabilities may include recovery time risk, where this is the risk that

policyholders in receipt of income protection payments take longer to recover from sickness than expected. Matching Adjustment 2.3 and 2.5 provide that in-payment elements of income protection contracts may be eligible for inclusion, where they are separately identifiable and can be organised and managed separately in accordance with regulation 4(6) of the IRPR regulations. The PRA considers that this will allow in-payment claims under both group and individual income protection policies to be permitted within MA portfolios, where the claims are not subject to future premiums. Unlike with mortality risk, there is no restriction on the exposure to recovery time risk in firms' MA portfolios. The PRA does not expect that the inclusion of recovery time as an underwriting risk should lead to types of liabilities other than income protection claims in payment being included in MA portfolios.

Group dependant annuities

3.5C Matching Adjustment 2.3 and 2.5 provide that in-payment annuities under group policies providing death-in-service dependant annuities may be eligible for inclusion in MA portfolios, where they are separately identifiable and can be organised and managed separately in accordance with regulation 4(6) of the IRPR regulations. The PRA considers that this will allow in-payment claims under group dependant annuity policies to be permitted within MA portfolios, where the claims are not subject to future premiums.

Deferred premiums

3.6 Some contracts of insurance include an option for the premium to be paid as an initial sum followed by a series of further (smaller) instalments. Except in the limited cases set out in paragraphs 3.5A, 3.5B and 3.5C above, the PRA does not view any approach that notionally splits a contract into parts as being compatible with Matching Adjustment 2.3. The PRA's view is that such a treatment would also undermine the ability of the insurer to manage its MA portfolio separately from the rest of the business, as required by regulation 4(6)(b) of the IRPR regulations.

Premium adjustment clauses

3.7 Some contracts of insurance include a premium adjustment clause that permits the initial premium paid to be adjusted post-contract inception, eg following a data cleansing exercise. The PRA does not consider that a premium adjustment clause will necessarily lead to a contract giving rise to future premium payments for the purposes of Matching Adjustment 2.2(1) if the adjustment is made only to correct for an overpayment or underpayment of a defined premium (resulting from inaccurate information at the contract inception) and does not have the effect of varying the contract.

Policyholder options or surrender options

3.8 The PRA expects firms to be able to submit strong quantitative evidence to demonstrate meeting the MA eligibility conditions in Matching Adjustment 2.2(4).

3.9 In assessing the risks associated with the exercise of surrender options, the PRA expects firms to consider (among other things):

- the processes and controls in place to manage surrenders;
- the likelihood of peaks and troughs in surrenders, and the drivers of these;
- historical surrender experience;
- the impact of increased or reduced surrenders on cash flow matching; and
- any liquidity strain associated with increased or reduced surrenders.

3.10 The PRA expects these considerations to form a part of a firm's risk and liquidity management of an MA portfolio.

3.11 In the case of deferred annuity contracts that are subject to a right of surrender before the start of the annuity payments, the PRA does not consider that the absence of a contract-level surrender basis will necessarily disqualify the obligations for the purposes of Matching Adjustment 2.2(4). When assessing compliance with this MA eligibility condition, the PRA expects firms to, at least:

- undertake a qualitative assessment of each contract that is proposed for inclusion in an MA portfolio to identify those contracts where the surrender basis is non-discretionary (or only contains limited discretion).²³ Such contracts should be considered carefully to assess the extent of surrender risk posed, and may need to be excluded from the portfolio on that basis;
- be able to demonstrate that none of the contracts proposed for inclusion could cause a surrender loss that is material in the context of an MA portfolio, including under stressed conditions. This is expected to include consideration of possible correlation effects between contracts. One possible mitigation for larger or more material policies could be to demonstrate that an individual surrender basis can and will be used for these policies;
- be able to provide evidence that the management of the surrender basis has not historically led to losses at portfolio level; and
- be able to provide a detailed description of how the surrender basis is set and the controls in place around this to manage the risk of loss on surrender. If an individual

²³ Here 'non-discretionary' means the surrender basis is stipulated in the contract and the insurer cannot change the surrender basis. 'Limited discretion' means the surrender basis has a discretionary element but there is a limit placed on the amount of discretion that can be used.

surrender basis would be used for specific contracts then this should be described separately in each case.

3.12 Where a single contract covers a number of individual scheme members or beneficiaries, the PRA would expect the points above to be considered in respect of these individual members or beneficiaries when assessing compliance with Matching Adjustment 2.2(4).

3.13 For the purposes of assessing whether the surrender value exceeds the value of the assets held, the PRA's preferred approach is for the surrender value to be compared against the BEL. Where firms have compared against the BEL plus risk margin, the PRA expects firms to be able to clearly demonstrate that the contribution of an MA portfolio to any surrender pay-out would be limited to the amount of assets held in that MA portfolio in respect of the surrendered contract(s), in order to be able to demonstrate compliance with Matching Adjustment 2.2(4)(b). For the avoidance of doubt, the PRA considers that including the contract's contribution to the SCR in the cost-neutrality assessment would be appropriate only in exceptional circumstances.

4: Best estimate cash flows and matching

4.1 [Deleted]

Best estimate cash flows for assets with HP cash flows

4.1A The PRA expects firms to model a projection of the best estimate asset cash flows to assess the quality of matching and to calculate the MA. For assets with HP cash flows, the PRA notes that firms may need to make a number of additional assumptions in order to determine the best estimate cash flows.

4.1B The PRA also notes that the cash flows used to calculate the BEL are determined using a probability-weighted methodology. For consistency, the PRA expects that such an approach should be the default methodology for the matching assets. However, given the scarcity of data in some instances and the size of some holdings, this may not be practical or proportionate for the entirety of the assets within firms' MA portfolios.

4.1C In deciding on a methodology, the PRA considers that firms may want to draw a distinction between assets exposed to economic variability and assets exposed to 'event' (or non-economic) variability.

4.1D Examples of economic variability include:

- i. optionality over redemption dates (eg callable bonds); and
- ii. amount variability where the amounts are expected to (but may not) change in line with an index.

4.1E Examples of non-economic variability include:

- i. event-driven variability (eg pre-payment on construction failure); and
- ii. amount variability that is dependent on meeting operational targets.

4.1F For assets exposed to economic variability, there may be sufficient relevant and credible data that shows how the payment profile is likely to vary under different economic conditions. For assets exposed to event risk there may be very limited data and hence significantly more expert judgement is likely to be necessary.

4.1G Regardless of the approach taken, the PRA expects firms to:

- maximise the use of relevant observable data;

- assume that their counterparties are economically rational (where justifiable, the PRA considers that some allowance for frictional constraints, such as operational or reputational considerations, may be made); and
- consider the size and materiality of the exposure when selecting a methodology.

4.1H The PRA considers that for smaller exposures to callable bonds, it may be reasonable for firms to adopt a 'yield to worst' methodology. However, as the exposure increases, the PRA considers that this approach is less likely to be appropriate, and as such would expect firms to consider using a probability-weighted approach that models the risk of changes to the call date.

4.1I For assets with event-driven variability, uncertainty in event estimation may mean that it is not practical to derive a probability-weighted estimate of future asset cash flows. In these circumstances firms may adopt a deterministic approach where the cash flows represent the firm's median best estimate outcome.

4.1J If a deterministic approach is taken, the PRA expects firms to be able to set out and justify:

- the limitations of the approach and hence whether any further increase to the FS addition is required;
- any expert judgements underlying the cash flow profile;
- the materiality of, and triggers to reassess, the expert judgements, including any potential correlations with other assets and the wider economic environment; and
- how frequently the cash flows will be reassessed.

4.1K The PRA requires the same level of rigour over expert judgements in the asset projection as elsewhere in the Solvency II balance sheet (Matching Adjustment 5.4(3)). This could include monitoring experience over time to demonstrate that the estimation process is not biased.

4.1L The PRA requires firms to maximise the use of market data consistent with the economics of the asset (Matching Adjustment 5.4(2)). This could include using market measures of expected economic variables and their volatility rather than historical information and ensuring that the present value of deferred possession of property is less than the value of immediate possession.

4.1M Irrespective of the methodology, the PRA would expect that in most circumstances the cash flow profile would be consistent with that used for fair valuation of the assets under International Financial Reporting Standards. Firms should be able to justify any deviations from this.

Demonstration of matching

4.2 When demonstrating that (as required in regulation 4(7) of the IRPR regulations) the expected cash flows of the assigned portfolio of assets replicate each of the expected cash flows of the portfolio of insurance or reinsurance obligations in the same currency, firms should carry out a quantitative cash flow-based projection assessing the extent of any cash flow surplus or deficit arising in each future period.

4.3 When demonstrating that (as required in regulation 4(8) of the IRPR regulations) any mismatch between the expected cash flows does not give rise to risks that are material in relation to the risks inherent in the insurance or reinsurance business to which the MA is applied, the PRA expects firms to undertake a quantitative assessment of the interest rate, currency exchange rate, inflation rate or other relevant risks that arise as a result of any cash flow mismatch and an assessment of the materiality of these risks when compared to the risks of an MA portfolio as a whole.

4.3A Where a firm invests in assets with HP cash flows, the PRA expects that the firm should assess, and be able to demonstrate compliance with, the requirement of regulation 4(9)(a)(i) of the IRPR regulations that the risks to the quality of matching are not material.

4.3B For assets with HP cash flows, firms should quantitatively assess the extent of any cash flow mismatch that could arise from changes to the expected payment amounts and/or the timing of those payments.

4.3C Where such mismatches arise, the PRA expects that this will crystallise as either reinvestment risk or liquidity risk. Firms should, in their assessment of the materiality of these risks, consider the consequential impacts on their liquidity plans and MA management policies.

4.4 The PRA recognises that some firms' liabilities may be significantly longer-dated than the assets generally available to match them, or can increase in line with an inflation index for which there are currently no specific matching assets available. In such cases, the PRA expects firms to be able to provide evidence to justify how these liabilities are matched in accordance with the requirements in regulations 4(7) and 4(8) of the IRPR regulations.

4.5 For the purpose of assessing the overall level of matching, one possible method is to split the relevant portfolio of assets into the following components:

- component A – assets where cash flows replicate the expected liability cash flows after being adjusted for the component of the FS that corresponds to the probability of default (PD) (taking account of differences in credit quality by rating notch if possible and appropriate to do so);

- component B – additional assets that, when added to component A, result in the value of components A and B combined being equal to the BEL within an MA portfolio (when discounted at the risk-free rate plus MA); and
- component C – further assets that are deemed ‘surplus’ for the purpose of meeting the best estimate liabilities, but that may or may not still be needed to demonstrate compliance with the other MA eligibility conditions.

4.6 To assist the PRA to take a consistent approach to assessing whether any mismatch gives rise to risks that are material in relation to the risks inherent in the insurance business to which the MA is intended to be applied, or (in relation to assets with HP cash flows) where the risks to the quality of matching are not material, firms should be able to provide cash flow and statistical information for each MA portfolio, in the form of specified ‘tests’ (‘PRA Matching Tests’) (see Appendix 1 of this SS for the tests).

4.6A The PRA expects all firms with MA portfolios to apply PRA Matching Tests 1, 2 and 3. Firms holding assets with HP cash flows in their MA portfolios are also expected to apply PRA Matching Tests 4 and 5.

4.7 The PRA Matching Tests seek to assess:

- the extent to which firms may be forced sellers of assets to meet liability cash flows;
- the materiality of any mismatch in relation to interest rate, currency or inflation risks;
- whether firms are materially under-matched;
- the impact on the MA if cash flows are received in a manner that reduces the MA benefit that may be earned; and
- the increase in the extent to which firms may be forced sellers of assets to meet liability cash flows, where cash flows are received later than expected, or are a lower amount than expected.

4.8 The PRA has also calibrated a set of indicative thresholds for each PRA Matching Test, which is aimed at identifying material mismatches. The PRA expects firms to monitor compliance against the thresholds on a regular basis. Where a firm does not fall within the threshold in any one of the tests, it should notify the PRA immediately. In this case, the PRA would expect the firm to demonstrate how it will restore compliance with the MA eligibility conditions, in particular regulations 4(7) and 4(8) of the IRPR regulations.

4.9 [Deleted]

4.10 The PRA also expects firms to be able to explain how they have treated each asset type (including reinsurance assets and derivatives) within the PRA Matching Tests and in particular what reinvestment assumptions they have made (if any) in the cash flows presented. However, for the purposes of projecting future cash flows to assess cash flow matching, the PRA expects firms:

- not to assume any future management actions. This includes items such as entering into derivative contracts at some future point in time or selling assets to meet cash flow eligibility conditions;
- for assets other than those considered to have HP cash flows, to assume that all asset cash flows arrive on their contractual date - any surplus assets cannot be assumed to be reinvested and realised at a future date. This implies that, where cash is used to demonstrate matching, the cash balance should be assumed to be realised in full in year 1 of the cash flow projection; and
- for assets with HP cash flows, to use the same best estimate projection as used in the MA calculation.

4.10A For assets with HP cash flows, firms may optionally include a reinvestment spread above the risk-free rate in both the PRA Matching Test 4 result and the methodology for determining the FS addition. Any reinvestment spread above the risk-free rate should be limited to that used for determining the adequacy of modified Spens clauses, as set out in paragraph 2.39 of this SS, less the FS the replacement assets would incur.

4.10B The PRA recognises that under PRA Matching Test 4, which involves assessing the lowest MA benefit for each asset with HP cash flows using a cash flow profile permitted under the contractual terms, the cash flow profile that results in the minimum MA benefit may not be the cash flow profile that results in the greatest level of reinvestment risk. In such cases, firms should consider whether a further assessment of the quality of matching is required.

4.11 The PRA expects firms to carry out the PRA Matching Tests on a 'net of reinsurance' basis for all applicable tests (including both the numerator and denominator) and to consider separately the extent to which an MA portfolio's reinsurance assets and liabilities are appropriately matched.

4.12 Where assets are grouped or paired, as referred to in paragraphs 2.8 to 2.11 of this SS, firms should be able to explain:

- how cash flows from the component A hedging assets are treated in the assessment of matching, particularly in relation to PRA Matching Test 1;
- whether the cash flows of the underlying asset(s) in a pairing or grouping have been hedged based on their contractual cash flows or expected cash flows. If the latter, firms should be able to explain what they are taking as 'expected' cash flows: for example, cash flows that have been de-risked for the default component of the FS; and
- how the paired or grouped assets have been mapped to FSs, and in particular whether the mapping is done for the combined asset or individually. For example, a floating rate note (FRN) or interest rate swap pair could be mapped as one fixed

cash flow asset, or the FRN and the swap could be mapped individually, with different FSs then potentially applying to each part.

4.13 The PRA expects that defaulted assets should not be used to match liabilities within component A. Given the uncertainty around potential recovery value, it may also not be appropriate for such assets to be held in component B. The exact treatment of any defaulted asset will depend on the type and severity of the default event; for example, default triggered by the failure of the borrower to meet its contractual payments to the lender(s) could be treated differently to a technical event of default where payments are still expected to be made in future. With that in mind, the PRA expects firms to develop their own definitions of default together with the associated consequences of different types of default event occurring in practice, including implications for the MA portfolio.

5: Calculation of the MA

5.1 The PRA expects firms to document the methodology used to calculate the MA to a sufficient level of detail such that it can be understood by a suitably knowledgeable third party.

5.2 [Deleted]

5.3 [Deleted]

5.4 [Deleted]

5.5 The PRA does not have a preferred approach as to how firms should reflect the FS (see also paragraphs 5.6 to 5.11 below for more details) within the MA calculation. All firms are expected to justify their chosen approach and to ensure that any calculations provided to the PRA are easily followed.

5.6 In relation to reflecting the FS within the MA calculation, the PRA notes that one method of performing the MA calculation is by extending the annual effective rate approach set down in Matching Adjustment 4.3, so that it incorporates all components of the FS published by the PRA (ie PD, Cost of Downgrade (CoD) and Long-Term Average Spread floor (LTAS floor)) and not only the part corresponding to the PD. The PRA recognises that this approach has advantages from the point of view of consistency, as all of the components of the FS are allowed for in the same way.

5.7 [Deleted]

Structure of the FS

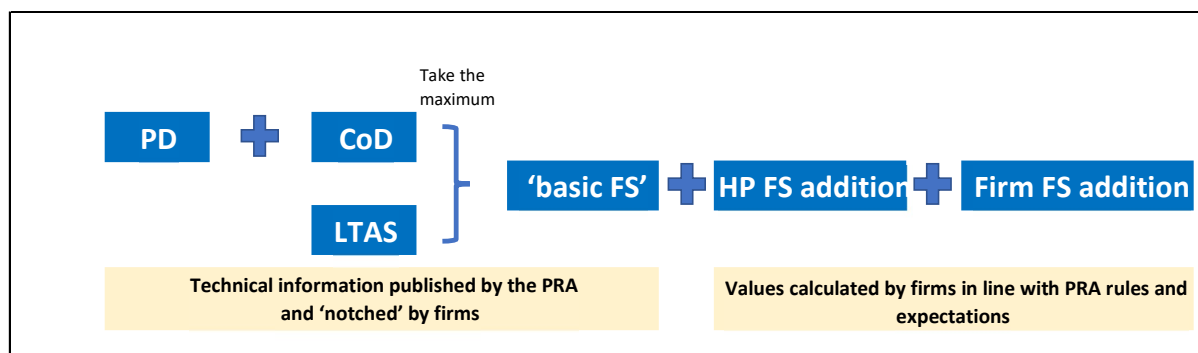
5.7A There are effectively three elements to the FS (as illustrated in Figure 1 below):

- The 'basic FS', which comprises the PD, CoD and LTAS floor. In most cases, firms will be required to use the technical information published by the PRA for each CQS in order to calculate the basic FS. Chapter 6 of the Matching Adjustment Part sets out adjustments that firms must make to this technical information (where possible and appropriate) to allow for differences in credit quality by rating notch. The PRA expects that, as part of ongoing risk management, firms' risk functions would seek the most up-to-date credit risk information possible, including in respect of differences in credit quality by rating notch. Chapter 6 of the Matching Adjustment Part also requires that firms must make an adjustment to the FS to reflect the corresponding rating notch where such a rating notch is 'available'. The PRA expects that most (if not all) assets should have a rating available on a notched basis within

six months of the asset becoming an assigned asset²⁴ in the MA portfolio. Where certain assets are not rated on a notched basis within this time period, the firm should be able to explain to the PRA why this is the case, and the PRA would expect the appropriateness of the resulting FS to be explicitly considered as part of the attestation process, including firstly, whether there is potential bias in the assigned assets towards the lower notch within a given CQS, and secondly whether the lack of notching information reflects greater uncertainty around the credit quality of the assets in question and, if so, whether the FS sufficiently allows for this;

- FS additions in respect of assets with HP cash flows (Matching Adjustment 4.16 and 8.2); and
- FS additions made by firms, including as part of the attestation process, to ensure the FS covers all retained risks in accordance with Matching Adjustment 4.17. Such additions can be applied in respect of the basic FS and/or FS additions in respect of assets with HP cash flows. In the latter case, a firm may make an addition on top of the existing FS addition for assets with HP cash flows due to, for example, changes in market conditions.

Figure 1: Structure of the FS



5.7B Firms are required to reflect differences in credit quality by rating notch in the basic FS (where possible and appropriate) for all assigned assets that do not use published FS tables for assets issued by governments and central banks. Matching Adjustment 6.1 requires the PD to be adjusted (where possible and appropriate) to reflect differences in credit quality by rating notch. Firms are also required to reflect such differences in the basic FS, which can be done by either:

- adjusting the CoD and LTAS floor components of the basic FS to reflect differences in credit quality by rating notch, which is the PRA's preferred approach; or
- adjusting the basic FS directly to reflect differences in credit quality by rating notch. In this case the non-PD component of the FS (often referred to as the 'residual FS')

²⁴ An assigned asset here means an asset contained in the relevant portfolio of assets, that falls within the scope of Matching Adjustment 4.4(1).

would be derived as a balancing item, but it would not be possible to further split this into CoD and LTAS floor components.

5.7C Where reference is made to the FS, the PRA expects firms to consider all three elements of the FS as set out in paragraph 5.7A above unless stated otherwise.

Use of the FSs published by the PRA

5.8 The PRA expects firms to be able to explain how they map assets to the relevant asset classes and CQSs for the purpose of assigning an FS. In particular, firms are expected to be able to explain the reliance they place on external credit ratings. The PRA expects firms to map assets based on the issue rating of an asset. Where such a rating does not exist, firms are expected to produce an internal rating that is broadly consistent with the expected issue rating were it to be produced by a CRA. Firms should take into account the PRA's guidance on internal ratings in SS3/17.

5.9 The PRA expects hedging assets included in component A (see paragraph 4.5 of this SS) to be included both in the PRA Matching Tests and in the MA calculation. All such assets should be mapped to an FS – either in isolation or on a grouped basis (as appropriate). However, in any scenarios where an MA portfolio is required to make net cash flow payments to the counterparty in respect of such assets (eg payments due under a swap contract), then these payments should not be adjusted for default.

5.10 Firms should pay careful attention to the fact that FSs vary for each maturity of cash flow for any given asset. The PRA expects firms to take this into account in both the default adjustment and in any 'residual FS' deduction (CoD subject to LTAS floor). Simplifications, for example using a single FS based on the duration of the asset, would be inconsistent with the way in which the FSs are intended to be applied in practice.

5.11 For the purposes of calculating the MA, the PRA expects firms to first apply those FSs laid down in technical information published in accordance with regulation 3(1) of the IRPR regulations, adjusted as required in Chapter 6 of the Matching Adjustment Part to reflect differences in credit quality of exposures by rating notch. In the event that an asset held by a firm does not correspond exactly to one of the asset classes or other categories laid down in this technical information, the firm should treat that asset as falling within the respective class or category identified in such technical information that most closely reflects that asset, and justify this decision in its application.

Reinsurance of MA business

5.12 The PRA expects that, in order to meet the requirements of Technical Provisions 2.1 of the PRA Rulebook, regardless of whether the insurer and reinsurer are within the same group, the ceding entity's balance sheet must be valued independently of the reinsurer's and

similarly, the reinsurer's balance sheet must be valued independently of the cedant's. In particular, the cedant should not take credit for any MA benefit available to the reinsurer.

5.13 In the case where an insurer has reinsured part of an insurance portfolio for which it has obtained permission to use the MA, then that permission relates only to the valuation of technical provisions of that insurer and does not automatically extend to any reinsuring entity to which it may cede risks. A reinsurance undertaking can only take credit for MA where it has been granted MA permission.

Group consolidation

5.14 As noted in paragraph 2.62 of this SS, Rule 11.1C of the Group Supervision Part of the PRA Rulebook requires that the BEL of group insurance and reinsurance undertakings and consolidated group own funds be calculated net of any intra-group transactions.

5.15 More generally, the PRA requirements for group solvency calculations, of which the requirements of the Group Supervision Part regarding intra-group netting are a part, indicate that the elimination of both the double use of eligible own funds and the intra-group creation of capital are key elements in its design. The PRA expects that the absence of either of these factors from any intra-group transactions designed to secure MA eligibility will be relevant in determining whether preservation of any MA benefit obtained at solo level is justified when consolidating assets and liabilities at group level.

5.16 For the purposes of group solvency calculated on the basis of Method 1 (accounting/consolidation), the PRA does not consider that Group Supervision 11.1D, 11.1E and 11.1F requires a re-assessment of MA eligibility at the group level where MA permission has been granted at a solo level in respect of an insurance or reinsurance undertaking in the group. This is particularly relevant to intra-group reinsurance. For example, where a reinsurance undertaking has the benefit of an MA that would be lost as a result of the netting referred to in Group Supervision 11.1E, the PRA considers that an adjustment to the group consolidated BEL would be appropriate to reflect the value of the reinsurer's MA benefit that would otherwise be lost, provided this does not result in intra-group creation of capital or double-counting of own funds within the group.

Additions to the FS for assets with HP cash flows

General principles

5.17 Assets with HP cash flows are likely to introduce additional risks into firms' MA portfolios and therefore increases to the FS for these assets will be required (in accordance with Matching Adjustment 4.16) to provision for these additional risks. As required by Chapter 8 of the Matching Adjustment Part, firms must identify all sources of uncertainty in cash flow

timing and/or amount and make an adequate allowance for these. The PRA expects firms to document details of these sources of uncertainty and how they have allowed for them.

5.18 Firms should maximise use of observable data where it is available. Where there is insufficient data for firms to model the cash flow uncertainty reliably, the application of an addition to the FS could be supported by other safeguards to mitigate risks to the quality of matching.

5.19 The FS addition should be determined such that the part of the credit spread that arises from borrower optionality does not result in recognition of a further MA benefit for the firm. The PRA considers that for a diversified portfolio of exposures that have HP cash flows, firms could make an adequate allowance for the risks arising from cash flow variability by targeting a percentile of the distribution of potential losses.

5.20 Firms will be exposed to the risk of additional reinvestment or rebalancing costs for the MA portfolio if the timing and/or amount of HP cash flows changes. The PRA therefore expects firms to hold as a minimum an allowance for these costs in the FS addition. The PRA expects that an allowance of 10 basis points (bps) would generally be adequate in normal market conditions, although firms may include their own experience data for the costs of trading assets in their MA portfolios in order to justify an alternative allowance. This minimum amount is intended to be a floor rather than a specific increase to the FS addition where a firm takes a standard approach to determining the FS addition for event risks.

5.21 Firms should model a term structure for the addition to the FS unless it can be demonstrated that a uniform allowance would not materially affect the adequacy of the allowance for the risks arising from cash flow uncertainty, and that a uniform allowance would not materially affect the assessment of the quality of asset and liability cash flow matching or the results of the PRA's Matching Tests.

Standard methodologies for initial exposures

5.22 The PRA understands that, at the point of initial investment, in many cases it may not be possible to develop a robust methodology for the addition to the FS, for example due to data scarcity. Firms may therefore propose a simpler (standard) methodology for calculating the FS, together with any safeguards that could mitigate the risks to the quality of matching. The PRA does not necessarily expect a firm to go beyond a standard methodology to model a term structure as set out in paragraph 5.21 above.

5.22A The PRA has set out expectations in paragraphs 5.23 to 5.25 below for standard approaches for economic and event risk exposures. For assets with both economic and event risk exposures, firms should follow the approach for the dominant risks. For pooled asset exposures where the underlying assets are exposed to economic risks but where there

is sufficient evidence of predictability, firms may propose to apply the standard approach to the FS addition for event risks.

5.23 Where assets are exposed to economic cash flow variability risks, the PRA expects that a standard approach would assume a pattern of cash flows where the yield for the investor is at a minimum (ie 'yield to worst'). Where the features or contractual terms of an asset make an alternative method more appropriate, this could be considered on a case-by-case basis, provided that the method retains the assumption that the issuer will act in economically rational manner. The FS addition should include an appropriate de minimis allowance for the risk of reinvestment and rebalancing costs as set out in paragraph 5.20 above.

5.24 For assets with event-driven variability, a standard approach could be for the firm to increase the FS by a proportion of the additional MA above the minimum MA (worst) outcome. The PRA considers that, given the data limitations, this proportion would generally be at least one quarter of this additional MA, and firms should ensure this proportion makes sufficient allowance for the costs of reinvestment and/or rebalancing the portfolio as set out in paragraph 5.20 above. Where a firm has credible data, it may be able to justify a lower proportion of the additional MA for particularly remote risks subject to appropriate allowance for reinvestment and/or rebalancing costs.

5.24A For this approach, where the cash flows resulting in the minimum (worst) MA are expected to be received earlier than in the best estimate projection, firms may assume that the expected proceeds are reinvested for the balance of the original term in assets with the same FS sector and credit quality at a prudent reinvestment spread above the risk-free rate, less the FS that the replacement assets would incur consistent with that permitted for Matching Test 4 in paragraph 4.10A of this SS.

5.24B The PRA understands that a firm may have a preference for expressing the FS addition developed consistently with this approach as a number of bps using spreads and economic conditions at the point of origination or investment. The PRA expects firms to assess the ongoing adequacy of the provision for the risks arising from cash flow variability and, where necessary, to adjust the allowance so that it remains consistent with the approach agreed with the PRA. Where a firm expresses the FS addition as a number of bps, the PRA does not expect that this will automatically require adjustment at each valuation date, but rather that the firm should have a framework for assessing whether the fixed allowance remains adequate as conditions change.

5.24C The PRA has set out worked examples below for the application of standard approaches to the FS addition:

- A callable bond that can be repaid at either year 5 or year 10 would be categorised under the standard approach as having economic risk. The firm would determine the yield assuming (i) repayment at year 5 and (ii) repayment at year 10, and take the

cash flow profile corresponding to the lower (worst) of these as the starting point for matching the liabilities. Finally, the firm would apply the FS in the usual way, increasing this for the allowance for potential reinvestment or rebalancing costs.

- For an asset with event risk, such as an asset repayable at par at any time triggered by a defined event (without prepayment protection), under the standard approach the firm should determine the minimum MA benefit and the best estimate MA benefit. The minimum MA benefit would not generally be expected to be less than zero, recognising that receipts from early repayment could be reinvested. The firm should then provision at least one quarter of this as the FS addition, subject to a minimum that also allows for the potential costs of reinvestment or rebalancing of the MA portfolio. Thus if the worst MA benefit were 5 bps and the best estimate MA benefit 65 bps, the provision would be one quarter of 60 bps, ie 15 bps, where this exceeds the minimum allowance for potential reinvestment or rebalancing costs.

5.25 The PRA considers that event-driven cash flow variability risks are more likely to be best represented by fatter-tailed distributions. Where more complete credible data becomes available to support more sophisticated modelling, the PRA considers that a provision of one quarter of the difference in MA benefit from median to worst cash flows is broadly equivalent to targeting the 85th percentile of a fatter-tailed distribution and that this would likely demonstrate adequate provision for the additional retained cash flow variability risks.

More sophisticated methodologies

5.26 The PRA expects firms to consider a range of factors when determining whether it is appropriate to move from the standard approach to one of greater sophistication, or to modify safeguards supporting the MA permission, including but not limited to:

- the extent of variability of the cash flows of the asset and how this may change over the life of the asset;
- the degree of volatility of the value of the asset;
- the extent of expertise the firm has in managing the asset; and
- the adequacy of data and extent of reliance on expert judgement in the proposed approach.

5.27 Where a firm proposes to develop a more sophisticated method for determining the FS addition, the PRA expects the firm to consider the appropriateness of the methodology used, including:

- whether the methodology covers all the additional risks and uncertainties associated with the relevant asset(s) with HP cash flows that are not covered elsewhere in the controls framework;
- how the methodology interacts with the cash flow projections for the assets in question;

- an assessment, and a justification, by the firm of the material strengths, weaknesses, and limitations of the methodology and the extent to which these could lead to the FS addition being inadequate; and
- how the FS addition calculated by the methodology would change in different market conditions.

5.28 The PRA would not expect a firm to propose a more sophisticated (modelled) approach for the FS addition if this would be substantially reliant on expert judgement, ie firms will need to be able to demonstrate there is sufficient data available to support a modelled approach for the additional risks.

5.29 The PRA recognises that not all sources of variability can be modelled using an advanced approach to calculating the FS additions, for example due to a scarcity of data. The PRA therefore expects that firms may seek to pursue advanced calculation methodologies for some assets with HP cash flows, while retaining the standard approach for others. The PRA expects firms to be able to justify why an advanced approach has been proposed for some exposures but not others.

Application of the FS addition in the MA calculation

5.30 Where, for the purpose of calculating the MA, a firm explicitly identifies the sub-portfolio of assets for which expected cash flows are used in the demonstration of cash flow matching (often referred to as the 'sub-portfolio' approach), the additional FS allowance may be captured in either the component A assets or the component B assets (see paragraph 4.5 of this SS) that also provisions for the CoD and any LTAS floor components of the FS.

Attestation

5.31 The PRA rules require firms to have an attestation policy in place (Matching Adjustment 10.3) and within this policy the PRA expects firms to include:

- subject to paragraph 5.32 below, how the firm has determined the PRA senior management function holder (SMF) responsible for the attestation;
- subject to paragraph 5.33 below, the triggers that may result in a material change in risk profile of the firm for an out-of-cycle attestation;
- the process by which the attestor should review the FS and MA, including any criteria for subjecting assets to a more detailed review; and
- an approach for determining the amount of any addition to the FS.

5.32 Matching Adjustment 9.1(3) requires that the senior manager with the prescribed responsibility for the production and integrity of the firm's financial information and its regulatory reporting (PR Q), as provided for in Rule 3.1(4) of the Insurance – Allocation of

Responsibilities Part of the PRA Rulebook, will be responsible for the attestation. This is because the SMF should have ultimate governance responsibility for the calculation of the FS and MA (regardless of delegations of any of their responsibilities), and can therefore implement an increase to the FS if required. In many cases, this will be SMF 2, the Chief Financial Officer, but this could be another SMF depending on how responsibility is allocated within the firm. A firm should approach its usual supervisory contact, in the first instance, should its governance arrangements mean that an alternative SMF would be more appropriate to undertake the attestation. Where more than one SMF holds PR Q, the PRA would expect all of those SMFs to attest. The PRA considers that the supervisory guidance contained in SS35/15 – Strengthening individual accountability in insurance²⁵ on sharing prescribed responsibilities (in particular paragraph 2.19A of that SS) would also apply.

5.33 The PRA rules require a firm to provide an annual attestation with the same effective date as its Solvency and Financial Condition Report (SFCR).²⁶ If a firm has any concerns in providing the annual attestation, it should approach its usual supervisory contact. If there has been a material shift in a firm's risk profile, then additional out-of-cycle attestation will be required. The PRA expects a firm to enter into discussion with it before concluding whether or not there has been a material change in risk profile, and to agree bilaterally with it the most appropriate date for the attestation reference date and the timescales for the completion of the out-of-cycle attestation. Triggers for an out-of-cycle attestation could include, for example:

- a large bulk purchase annuity transaction where the assets transferred have a materially different profile to those currently held;
- the merger of two MA portfolios; or
- a significant shift in the economic outlook for assets comprising a material proportion of the MA portfolio.

5.34 The PRA recognises that the attestation requirement may result in firms making voluntary additions to the FS as they take greater accountability for the level of MA applied in the valuation of their liabilities. The PRA does not expect its proposals to result in a general increase in the level of FS applied to all assets. Nevertheless, under the regulatory FS / MA construct there is a wide range of credit spreads, and hence of MA, even for assets of the same currency, sector, CQS and term. The PRA expects the attestation to provide greater insight into the drivers of variation in MA and improved management of the risks identified. This could result in a narrowing of the range of MA via an addition to the FS, where the risk and return characteristics of assets do not justify the variation within the range, taking risk

²⁵ June 2021; www.bankofengland.co.uk/prudential-regulation/publication/2015/strengthening-individual-accountability-in-insurance-ss.

²⁶ Matching Adjustment 9.1.

management and mitigation into account. The PRA expects that a voluntary FS addition applied by a firm would not automatically result in a reduction to its SCR.

5.35 The PRA expects firms to adopt a systematic approach to reviewing the evidence for the attestation, which should include an assessment of whether the MA portfolio has a risk profile that is consistent with the assumptions underlying the MA (see Chapter 1A of this SS). An example process is set out below outlining considerations that the PRA expects firms to take into account (noting that these are not exhaustive), but regardless of the approach followed, firms should review the FS and MA independently of each other. The PRA considers that this will add rigour to the process and the MA can act as a market-based check on the level of FS. The PRA expects firms to take a proportionate approach to satisfying themselves of their ability to earn the MA. In practice this means that firms should place more focus on those assets with a comparatively high level of MA.

Step 1: Identify assets in the MA portfolio with a risk profile that is consistent with the assumptions underlying the MA, for example, corporate bonds or private placements that have the same risk characteristics as bonds but are not traded. While the PRA expects firms to rely on the basic FS for the majority of these assets, and does not generally expect these assets to require an increase to the FS, particularly for portfolios that broadly reflect the FS calibration data, firms should consider whether exceptions apply.

- Firms should consider whether there is any concentration of exposure (eg to any asset or sector) relative to the portfolio of assets underlying the FS calibration data, and any idiosyncratic risks or other characteristics that may not be represented in the FS calibration data (eg bonds with a maturity exceeding 30 years). Where applicable, a firm should also consider whether the FS appropriately captures the risk for exposures in different currencies.
- Firms should consider rating lags, rating inaccuracies and factors that increase the probability of future downgrades (eg where individual assets are on rating watchlists, where assets are not rated on a notched basis but subject to a potential bias towards the lower notch within a given CQS, or where there is a materially adverse economic outlook for a particular sector).
- Where needed, firms should apply an increase to the FS for these assets and document their reasons for doing so.

Step 2: Identify assets in the MA portfolio with a risk profile that is not consistent with the assumptions underlying the MA, such as assets that are internally rated, internally valued, privately placed, or restructured, or assets with HP (as opposed to fixed) cash flows.

- Firms should consider retained risks that are common to assets covered in Step 1.

- Firms should consider additional risks that are not captured in the rating, or that may result from high uncertainty. Examples of these include political, reputational, conduct or legal risks, or complex/novel features for which limited data exists.
- Firms should consider additional risks that arise from sources of cash flow variability, and ensure that these risks have been sufficiently captured by the required FS additions, based on guidance set out in paragraphs 5.17 to 5.29 of this chapter.
- Where credit is taken for collateral to support the recovery rate assumed, firms should identify risks associated with the performance of the collateral, including illiquidity and reinvestment risks.
- Where proportionate, firms should develop their own, more sophisticated models and processes to come up with an FS that reflects compensation for all retained risks.
- Where needed, firms should apply an increase to the FS for these assets and document their reasons for doing so.

Step 3: Review all assets in the MA portfolio and explain (or modify) the MA on assets that are material contributors to the MA. There should be clearly articulated metrics for identifying material contributors, for example:

- the [w] biggest contributors to the total MA amount
- corporate bonds where the spread is more than [x] standard deviations away from the index mean;
- illiquid assets with an MA that is more than [y] bps greater than that on an equivalent corporate bond; and
- corporate bonds or illiquid assets where the MA exceeds [z]% of the spread.

5.36 The PRA expects firms to consider the FS and MA on an asset-by-asset basis and not assume that prudence for one asset can be offset against an insufficient FS for another. Whilst firms may perform an initial analysis by grouping assets into homogenous risk groups (HRGs), these groups should be granular enough to ensure that both the type and level of risks are sufficiently similar within each group. The PRA considers that HRGs should be defined by a minimum set of factors; these include asset type, sector (financial / non-financial), sub-sector (retail, healthcare, industrial, etc), rating method (internal / external), rating (potentially including notches where the difference in FS is material), broad collateralisation levels and broad maturity bands. Firms should further examine specific assets where necessary, for example in order to identify idiosyncratic risks and other downgrade risks, and material MA contributors that affect specific assets within each HRG.

5.36A When assessing the portfolio as a whole, the PRA expects firms to consider the degree to which there may be reduced diversification and increased risk to the MA due to concentration from a particular risk type or within a given asset class or sector. The PRA also expects firms to consider risks arising from the need to rebalance the portfolio when

determining any voluntary FS additions. Specifically, where the associated costs deviate from those assumed in the basic FS, firms should take into account firm-specific rebalancing strategies and the potential range of market conditions under which the rebalancing might occur.

5.37 Firms should have a high degree of confidence that all the residual spread will be earned, considering the MA as:

- an addition to the risk-free discount rate of liabilities; and
- reflecting only non-retained risks, eg liquidity risks.

The PRA expects that firms would have the same degree of confidence across different asset types, including those with HP cash flows, and they would target the same level of certainty as they would for a portfolio of liquid corporate bonds with fixed cash flows taking the expected review process for these corporate bonds (as described in paragraph 5.35 above) into account.

5.38 Firms should be able to rationalise the size of the residual spreads. Where high residual spreads are attributed to origination expertise such as access to private markets or structuring skills, firms should consider the likelihood of the established asset being able to achieve a market price that reflects the ‘value-added’ during the origination process, assuming there are buyers with the same illiquid liability profile / long-term cash flow needs. A relatively high residual spread could sometimes be explained by an asset valuation being lower than the market price.

5.39 Where high residual spreads are attributed to required ongoing management expertise, firms may consider the residual spread net of any investment expense allowance when reviewing the size of the MA. Where the adjusted residual spread remains materially higher than the average for corporate bonds of the same credit quality (noting that the data underlying the technical information is based on corporate bonds), firms should explain the relative excess spread in relation to non-retained risks in the asset. The PRA expects firms to consider whether any ‘relative excess spread’ on an asset could be indicative of additional, but unidentified, risks or greater variability and uncertainty around an expected outcome, reducing the level of confidence that the MA could be earned. The PRA recognises that there is significant judgement and uncertainty in spread decomposition, which involves quantifying the likelihood and impact of certain risks materialising and the compensation that is commensurate with these risks. Hence the PRA expects that there is room for the role of judgement and reasonable differences in views. Nevertheless, firms should examine material contributors to the MA (as per Step 3 of the example process in paragraph 5.35 above) and clearly set out the rationale for these.

5.40 The PRA requires a firm to list the evidence relied upon in making the attestation, among other details as outlined in Matching Adjustment 12.3, within its attestation report,

which should be submitted to the PRA alongside its attestation document via the firm's usual supervisory contacts. The PRA expects that supervisors may request the evidence listed on an ad-hoc basis. Building on the framework above, the PRA expects the evidence to include:

- evidence that the credit ratings or assessments for all assets were accurate, reliable, and up-to-date;
- analysis of the credit risk exposure and how this compares to the risks underlying the assets used to calibrate the FS and assumptions underlying the MA;
- justification that the methodology and amount of any FS additions for assets with HP cash flows remain appropriate;
- details of assets that have been identified as material contributors to the MA and justification for that amount of MA; and
- an explanation of how any voluntary FS additions were determined.

5.41 In accordance with Matching Adjustment 11.1, a firm will be required to disclose in its SFCR a statement as to whether or not it has provided the attestation in respect of the financial year to which that SFCR relates. However, a firm's attestation is directed to the PRA and consequently the PRA does not require a firm to publicly disclose the content of its attestation report, nor expect auditors to take into account the attestation requirement when considering the amount of MA claimed by the firm.

6: Liquidity plan

6.1 The PRA expects a firm to have a liquidity plan in place for its MA portfolio(s).

6.2 While the PRA considers it acceptable for firms to manage liquidity at entity level, firms should be able to demonstrate the processes in place to ensure that there is sufficient liquidity available to an MA portfolio, taking account of any lack of fungibility. Firms should show in their liquidity plans how an MA portfolio can obtain the necessary liquidity, and how liquidity management for an MA portfolio interacts with liquidity management for the rest of the firm.

6.3 The PRA does not consider that the selling of assets from an MA portfolio to generate liquidity would be consistent with the MA eligibility conditions, in particular the condition that the assignment of assets should be maintained over the lifetime of the obligations except where cash flows change materially (regulation 4(5) of the IRPR regulations).

6.4 The liquidity plan will form part of a firm's own risk management, so should reflect the firm's own assessment and management of liquidity risk.

6.5 The PRA considers that it would be helpful for a firm's liquidity plan for the MA portfolio to include or address the following points:

- a clear definition of liquidity risk in the context of the MA. By explicitly identifying the sources of liquidity risk, and providing a detailed consideration of how the liquidity plan would be used for risk management and decision-making in relation to an MA portfolio, firms can demonstrate that they have understood and identified that portfolio's risks;
- an accurate forecast of cash inflows and outflows, setting out any key assumptions made (eg reinvestment rates, FX hedging requirements and use of repos). For assets exposed to the risk of cash flow variability, firms should consider cash flows using both best estimate assumptions and also alternative cash flow patterns. Also, the PRA considers that it is good practice to include a process of regularly reviewing liquidity plans, taking into account all timing requirements, including those that ensure the restoration of compliance with MA in the event of a breach;
- the tools to be developed to monitor and manage liquidity risk, including what stress and scenario testing would be performed and what mitigation options are available (eg additional sources of liquidity);
- a consideration of how any existing liquidity risk management framework could be adapted for the specific liquidity requirements of an MA portfolio. The PRA considers that it is useful to understand how the liquidity management of an MA portfolio interacts with the wider liquidity risk management framework. However, the PRA

would not view a liquidity plan that only covered, for example, the overall liquidity buffers held by the firm or its holding companies, or syndicated lines of credit, as being adequate to satisfy the requirements of Conditions Governing Business 3.1(3);

- policies on the extraction of surplus, taking into account paragraphs 7.19 to 7.21 of this SS, in the liquidity plans of firms that manage this risk at entity level;
- liquidity of the assets in an MA portfolio; and
- a consideration of the liquidity of collateral posted to an MA portfolio, including in a stress scenario.

7: Management of an MA portfolio

Collateral management

7.1 The PRA considers that for the purposes of regulation 4(6)(b) of the IRPR regulations, firms must ensure that their collateral arrangements do not undermine the MA eligibility condition for firms to manage their MA portfolios separately from the rest of their business.

7.2 While firms may be able to satisfy this condition in a range of ways, the PRA considers that separate collateral arrangements in respect of an MA portfolio would most obviously be conducive to ensuring separate portfolio management. For example, in the case of title transfer collateral arrangements, separate netting arrangements in respect of an MA portfolio would ensure that that MA portfolio is not exposed to the non-MA business of the firm. However, it is for firms to be able to demonstrate how their arrangements and processes ensure that an MA portfolio is managed separately and is not exposed to the non-MA business. In evidencing this the PRA would expect a firm to:

- explain the options it has considered and the benefits or risks of each of these;
- clearly set out the reasons for selecting its chosen approach; and
- explain the controls it has put in place to ensure successful operation of its processes.

7.3 The PRA also expects firms to review their collateral arrangements and to be able to demonstrate that these arrangements will be effective and enforceable. The PRA would expect any such demonstration to include consideration of how the arrangements would operate in a range of scenarios, including the default of one or more significant counterparties.

7.4 In the case of stock lending activities relating to assets of an MA portfolio where collateral is received against the resulting counterparty exposure, the PRA considers that unless the collateral comprises only MA eligible assets, there is a risk that the MA portfolio would cease to satisfy the MA eligibility conditions in the event of a collateral call. In that case, it may not be possible to rectify this within the required two-month period.

7.5 The PRA considers that an approach of over-collateralising exposures to counterparties using appropriately liquid and marketable assets could potentially mitigate the risk associated with collateral calls.

7.6 While the PRA is open to considering different approaches, in all cases the PRA expects firms to be able to demonstrate that the overall matching position of an MA portfolio could be restored were a call on the collateral to result in the MA eligibility conditions (including the

matching of cash flows) no longer being satisfied. The PRA expects this to include a review by firms of their collateral arrangements and why they consider that these arrangements will be effective in a range of very adverse scenarios. These include scenarios that result in the failure of one or more large counterparties, with the expected consequential market dislocations and reduced ability to sell significant volumes within the two-month time frame.

7.7 Collateral arrangements may give flexibility to a firm's counterparty to return assets that are not identical to those posted. The PRA expects that in such cases, the counterparties should return equivalent (though not necessarily the same) assets (eg in the case of financial instruments, financial instruments of the same issuer or debtor, forming part of the same issue or class and of the same nominal amount, currency and description, and in the case of cash, a payment of the same amount and in the same currency). If there are other elements of flexibility in the arrangements, the PRA would expect firms to consider this and the appropriateness of the arrangements. In any event:

- where liquid assets are posted as collateral, firms should consider whether the condition to return equivalent assets is sufficiently narrowly defined to ensure that upon return, an MA portfolio will continue to satisfy all the MA eligibility conditions including those covering asset eligibility and liability cash flow matching; and
- for illiquid assets, unless the collateral arrangement requires the return of identical assets, firms should consider whether such assets should be excluded from their cash flow matching assessment. For the purposes of calculating the PRA Matching Tests published in Appendix 1, illiquid assets posted as collateral should be excluded unless the collateral arrangement requires the return of identical assets.

7.8 The PRA expects that collateral arrangements relating to an MA portfolio that require over-collateralising positions, or that restrict the type of assets that can be posted as collateral, could restrict the ability of firms to extract surplus or to use those assets to meet other MA liabilities. The PRA expects firms to be able to demonstrate that they have considered these issues and the impact this has on their ability to extract surplus from their MA portfolios.

Demonstration that an MA portfolio is identified, organised and managed separately

7.9 The PRA understands that the processes used to identify, organise and manage MA portfolios will vary across firms. However, the PRA expects all firms to be able to demonstrate that separate processes have been put in place relating to:

- accounting systems;
- investment policy and mandates;

- processes and controls, including controls to ensure that the assets within the portfolio will not be used to cover losses arising elsewhere;
- governance; and
- management information.

7.10 The PRA understands that for practical reasons, firms may wish to administer eligible and ineligible business together for some purposes. The PRA does not consider that such joint administration of eligible and ineligible business would in itself be inconsistent with the MA eligibility conditions in regulation 4(6)(b) of the IRPR regulations and Matching Adjustment 2.2(5), provided that a firm can show that systems and controls are in place at a sufficient level of granularity to ensure that an MA portfolio can be identified, managed and organised separately from the other activities of the firm and that the assets in an MA portfolio cannot be used to meet losses arising from the other activities of the undertaking.

7.11 The PRA does not consider that the notional splitting of assets (such as individual derivative contracts) between MA and non-MA portfolios is consistent with the MA eligibility conditions in terms of managing each MA portfolio separately from the rest of the business. If assets were notionally split then an MA portfolio would be reliant on the rest of the business to some extent as a result of the joint management of the assets. Where risk exposures are managed and netted across the MA and non-MA portfolios, this could result in exposures emerging between portfolios. These exposures could in turn lead to MA being lost in the event of counterparty default, if the remaining business does not have sufficient eligible assets to make good any losses in an MA portfolio.

7.12 It would not be appropriate therefore, for firms to manage derivatives forming part of an MA portfolio at a level higher than the level of the MA portfolio under consideration. Assets of an MA portfolio should be allocated exclusively to that MA portfolio and firms should put in place systems to allow them to manage exposures at the level of that MA portfolio.

Demonstration of the appropriateness of the investment policy

7.13 For the purposes of being able to demonstrate that the conditions of regulations 4(3) and 4(5) of the IRPR regulations are satisfied, the PRA expects firms to be able to confirm or demonstrate that:

- The investment policy for the assets in an MA portfolio is based on a hold-to-maturity strategy (subject to the exception provided in regulation 4(5) of the IRPR regulations). The investment policy should distinguish this approach from speculative strategies designed to benefit from anticipated price movements over short-term investment horizons.
- There is a regular (eg monthly) process that, allowing for new business written, ensures close cash flow matching. This process should identify whether the cash

flow matching is within accepted tolerances and define the actions to address any situation where matching falls outside of accepted tolerances.

- There is a regular (eg monthly) process that also takes into account all other conditions, including the condition to compare the value of the relevant portfolio of assets (components A, B and C referred to in paragraph 4.5 of this SS) with the best estimate of the MA liabilities.

Sub-investment grade exposures

7.13A The PRA expects firms to keep holdings of sub-investment grade assets to prudent levels, taking account of the extent to which other asset holdings could downgrade to sub-investment grade in deteriorating market conditions. Sub-investment grade exposures can give rise to increased risks due to their lower credit quality and can also give rise to a greater breadth of risks compared to investment grade exposures; for example, their significantly higher propensity to default requires greater focus on work-out capabilities. The PRA expects firms to consider this, along with any potential concentrations in their sub-investment grade (or near sub-investment grade) exposures, when setting their investment strategy and limits, as part of their ongoing risk monitoring and when assessing whether their approach to managing assets in an MA portfolio is in line with the PPP. Possible further metrics, in addition to the market value of sub-investment grade exposures, that firms could consider in this regard include the contribution of sub-investment grade assets to: total PD-adjusted cash flows; total monetary value of MA benefit; and total monetary value of the FS. Firms should also consider the adequacy of their work-out processes with regard to the size of their sub-investment grade exposures. As part of the attestation process, firms should carefully consider whether the published FS allowance is sufficient for all retained risks.

Rebalancing assets in an MA portfolio

7.14 The PRA expects firms to be able to demonstrate that the governance and controls around investment management, including the investment strategy and the discretion given to investment managers, ensures that any rebalancing of assets within MA portfolios is strictly for the purposes of good risk management.

7.15 Keeping in mind the constraints of the condition in regulation 4(5) of the IRPR regulations, the PRA recognises that firms may wish to undertake asset rebalancing in an MA portfolio as a result of changes in expectations of future asset cash flows. The PRA also accepts that there may be circumstances where some asset trading is required in order to implement a change to the firm's risk and investment management strategy, for example to de-risk (or re-risk) a portfolio and to manage the MA portfolio in line with the overall credit risk appetite for the MA portfolio. Where it is specifically for the purposes of good risk management, trading an asset for one with the same yield but lower risk or for one with a higher yield but the same risk, is not necessarily precluded so long as a firm can demonstrate

robust principles and practices around risk management and governance. A firm should consider how its policy on asset trading interacts with its:

- risk management objectives; and
- investment policy for the MA portfolio to hold any asset to maturity.

7.16 The PRA also expects firms to have in place a process by which trades made within an MA portfolio are reported regularly to senior management. The PRA expects to be able to review such information as part of its ongoing supervision of firms applying the MA.

The following sections (paragraphs 7.17 and 7.18) highlight examples of some good practices.

Investment strategy

7.17 The investment strategy is drafted to reflect a hold-to-maturity strategy with limited discretion to trade. This investment strategy includes:

- the target asset allocation by broad asset group;
- the extent to which each type of asset is being held on a hold-to-maturity basis (eg long-term illiquid assets) or as a short-/medium-term position to maintain the matching position or level of aggregate risk (eg derivatives);
- appropriate limits within the investment management agreement on the turnover of the fund in the normal course of events; and
- adequate governance arrangements, appropriate to the firm's size and investment strategies that apply to any changes to the investment strategy and policy or to any trades that go beyond discretion granted to investment managers.

Discretion given to the investment managers

7.18 The investment agreement and mandates clearly set out levels of discretion available to the investment managers and include:

- the average credit quality for the various asset groups by term bucket;
- key features required or not allowed for each of the classes (eg no bonds allowing early repayment without adequate Spens clauses);
- the target duration by term bucket and target cash flow profiles;
- concentration limits by sector and counterparty;
- levels of turnover at sufficiently granular levels, categorised by reason for trading;
- tolerances for deviations from the above targets;
- permitted use of derivatives;
- requirements on the receipt and provision of collateral in respect of derivatives within an MA portfolio (eg credit quality, and/or strength of collateral agreements);

- restrictions on the use of gearing (eg investing cash collateral received into bonds);
- any other permitted investment activities and limits on them (eg stock lending);
- frequency with which management information is provided;
- management information on a trade-by-trade basis:
 - the reason for the trading (eg changes to target cash flow profiles, maintaining risks within limits, and/or consistency with investment policy). This could be on a set of grouped trades (eg bonds and derivatives) where necessary;
 - a reconciliation of assets purchased or transferred in against the MA eligibility conditions for assets within the MA portfolio;
- management information on a regular basis:
 - summary of the trade-by-trade information; and
 - a reconciliation with the limits within the investment mandate (covered above).

Extraction of surplus

7.19 Firms should be able to describe the process by which they will maintain an MA portfolio on an ongoing basis, to demonstrate compliance with regulation 4(6) of the IRPR regulations. The PRA expects the governance process around any extraction of surplus to be robust and to include assessment of the firm's ability to continue to meet the MA eligibility conditions. The PRA expects firms to support this assessment by setting clear materiality thresholds for the change in expected cash flows and using a profit and loss attribution analysis indicating the source(s) of surplus. The PRA considers that where surplus has arisen only due to asset values changing (but there is no corresponding change in expected asset or liability cash flows) it would not be appropriate for such surplus to be extracted.

7.20 Where a surplus has arisen over time due to favourable experience (such as underwriting experience), the PRA's view is that it may be possible for a firm to demonstrate that cash flows have materially changed and that it is appropriate for the firm to substitute assets to allow for the fact that the MA portfolio now has surplus or extra cash flows.

Transferability and recognition of diversification

7.21 When assessing transferability and scope for diversification within an internal model, the PRA expects firms to be able to demonstrate that their assumptions are consistent with their policies on the ongoing maintenance of an MA portfolio, and in particular that any restrictions on the extraction of surplus are taken into account.

7.22 If a firm considers that any restriction on transferability or diversification is either immaterial or irrelevant as far as it is concerned, then it should be able to provide appropriate evidence to justify this.

7.23 Firms should also consider whether the following could limit the scope for diversification:

- whether sufficient eligible assets exist outside an MA portfolio, or can be sourced quickly, in the circumstances that assets need to be injected into that MA portfolio. If there are insufficient eligible assets available, this could result in the full or partial loss of the MA; and
- whether, in scenarios that generate large surpluses in an MA portfolio, the firm is able to extract the MA surplus in time to offset losses elsewhere. If the firm cannot extract an MA surplus, the biting capital scenario could change from one that results in large deficits in that MA portfolio to one that results in large surpluses.

Treatment of new business

7.24 [Deleted]

7.25 Further assets and liabilities may only be included in an MA portfolio where they have the same features as those assets and liabilities for which MA permission has already been granted. New asset types and liability types will likely need a variation of MA permission before being included. Firms should consider carefully whether new combinations of permitted features require a variation of MA permission. This is discussed in more detail in Chapter 9 of this SS.

8: Ongoing MA compliance

8.1 Firms should ensure that their existing MA portfolios satisfy the MA eligibility conditions on an ongoing basis. The PRA expects a robust process to assess this to form part of a firm's risk governance. As part of its supervision of firms, the PRA may periodically review a firm's ongoing compliance with MA eligibility conditions, including:

- documentation relating to the MA portfolio's compliance with relevant requirements; and
- management information with regards to the ongoing monitoring of the MA portfolios.

8.1A Firms with permission to apply the MA are required (under Rule 2.5B(11) of the Reporting Part of the PRA Rulebook) to complete the Matching Adjustment Asset and Liability Information Return (MALIR) on an annual basis. The PRA recognises that in some circumstances the requirement to complete a MALIR on an annual basis could be unduly burdensome, having regard to the size of the firm or the nature of its MA portfolio(s) and certain sections of the MALIR may not be applicable to all portfolios. If a firm considers this to be the case, it should approach its usual supervisory contact to discuss, on a portfolio basis, potentially applying under section 138A of the Financial Services and Markets Act 2000 for either a waiver of the MALIR reporting requirement as a whole, or a modification in respect of any aspects of the requirement that would be unduly burdensome or would not achieve the purpose for which the rules were made. Applications would be assessed by the PRA on a case-by-case basis, in accordance with its usual practice. The PRA expects that the materiality of the portfolio would be an important factor in considering such an application, although other considerations would also be taken into account, including the size of the firm and the nature of the asset holdings in the portfolio in question.

Breach of MA eligibility conditions

8.1B Where a firm is required to reduce the MA for ongoing non-compliance with the MA eligibility conditions, in accordance with Matching Adjustment 13.5, the firm is required to reduce the MA (expressed in bps) by a factor of 10%, commencing immediately two months from the date of non-compliance (subject to paragraph 8.3 below). The firm will be required to continue to reduce the MA by an additional 10% for each further month that it remains non-compliant, where the reduction factor of 10% is applied to the level of unadjusted MA. The PRA notes that the MA referenced in the rule is dynamic; for the purposes of calculating the reduced MA benefit, the PRA expects a firm to use the current level of MA. The PRA will consider the features of the breach of MA eligibility conditions and the firm's risk management framework on a case-by-case basis. As a result, the PRA may ultimately determine that the MA should be reduced by a factor higher than 10% each month, or,

conversely, may be willing to adopt a more flexible approach through the use of its supervisory powers. A reduction of the MA will cease to apply once the firm restores compliance with MA eligibility conditions. The PRA expects that the firm will discuss with its usual supervisory contact whether a particular breach has been satisfactorily resolved before removing a reduction to its MA.

8.1C In the event of a firm's MA being reduced by 100%, the PRA expects to revoke the MA permission for that firm. The PRA considers that if a firm is unable to restore compliance with MA eligibility conditions by the time the MA is reduced by 100%, it is likely to have fundamental issues managing its MA portfolio. These issues may include governance, risk management, and the ability to separately organise, identify and manage an MA portfolio. Given such circumstances, the PRA considers that revocation of the MA permission would be likely to be appropriate. The firm should submit a new application to apply the MA again, following the process set out in the SoP – Solvency II: Matching Adjustment Permissions.

8.1D Matching Adjustment 13.4 and 13.5 provide that firms in breach of MA eligibility conditions will not be required to reduce the MA if compliance is restored within two months. Nevertheless, the PRA expects that a firm will not breach MA eligibility conditions on a regular or frequent basis, and considers that regular or frequent breaches may be evidence of a failure of the firm's risk management framework.

8.1E Where the PRA considers that there has been a significant breach of MA eligibility conditions, or where there are regular or ongoing multiple breaches of MA eligibility conditions, the PRA may revoke a firm's permission to apply the MA. An example of a significant breach is a firm not addressing in a timely manner a PRA notification that it considers a firm to be in breach of MA eligibility conditions.

8.1F Where a firm has had its MA permission revoked, the PRA expects that any subsequent MA application should include a clear demonstration of how the firm has addressed the issues that led to the previous breach of MA eligibility conditions.

8.1G Where a firm is required to reduce the MA as a result of a breach of the MA eligibility conditions, the PRA does not expect the firm to recalculate the SCR, or to alter the modelling of management actions in the internal model to take into account this reduction in MA. The loss in own funds over a 12-month horizon should continue to be based on balance sheet movements ignoring any reduction in MA resulting from a current breach of MA conditions.

8.2 Firms should ensure that they have appropriate processes in place to identify and investigate any potential breaches of MA eligibility conditions on a timely basis, and engage with the PRA as early as possible where there is a risk that they have been, or will be, breached.

8.3 The PRA will consider the circumstances of a firm's possible breach of MA eligibility conditions on a case-by-case basis. In cases where a breach is reasonably only determined after the date it has occurred (eg either identified by the firm or notified to the firm by the PRA), the two month period to remedy a breach of the MA eligibility conditions starts from the point at which the breach is detected or confirmed to have happened. The action(s) required to remedy the breach within that period (and hence, subject to the considerations in paragraph 8.1B above, avoid a reduction in the MA) will also depend on the circumstances of the breach; for example, in the event of assets or liabilities being included in the portfolio that are not covered by the scope of the existing MA permission, the remedy could be to remove the assets or liabilities from the portfolio pending making a new MA application.

8.4 Where more than 10% of the MA benefit claimed for a MA portfolio is attributable to an asset with HP cash flows, either on its own or when taken together with other assets with HP cash flows in the relevant portfolio of assets, this will be a breach of Matching Adjustment 5.2. The PRA expects a firm to take an appropriate approach, consistent with its MA permission, to prevent or remediate such rule breaches. This approach may include the movement of assets between components of the MA portfolio, or between the MA portfolio and non-MA portfolio. The MA attributable to assets with HP cash flows may also be reduced by the application of further FS additions to assets with HP cash flows. However, the PRA considers that routinely applying further FS additions to remain within the 10% limit may be evidence of a failure of the firm's risk management framework.

9: Changes to MA portfolios

9.1 This chapter sets out the PRA's expectations of firms in relation to changes to their MA portfolios after MA permission has been granted. It should be read in conjunction with the SoP – Solvency II: Matching Adjustment Permissions. Paragraph 9.6A below is also relevant for initial MA applications.

Variations of MA permissions

9.1A MA portfolios are typically managed on a going concern basis. As a result, a firm that has an MA permission should also be allowed to use the MA to value future insurance or reinsurance obligations to the extent that those obligations, and the assets matching them, possess the same features as the obligations and assets included in its most recent MA permission and the firm continues to meet the MA eligibility conditions. The MA asset eligibility conditions should be clearly reflected in the firm's investment mandates for its MA portfolios, and the firm should apply a screening process when it is considering new asset purchases in order to enable it to identify any new asset features.

9.2 A firm should consider the implications of any proposed change to its MA portfolio(s), including whether such a change will require an application to vary its MA permission. The circumstances under which a firm should consider whether it needs to apply to vary its existing MA permission include, but are not limited to:

- the introduction of new asset types, for example assets with HP cash flows, into the MA portfolio(s);
- the introduction of assets with new combinations of features for which permission has already been secured (across different asset types) in different combinations, only where those combinations give rise to material risks resulting from dependencies and/or interactions not considered as part of the existing MA permission;
- changes to any safeguards or exposure limits;
- changes to the approach used to determine the additions to the FS for assets with HP cash flows;
- the introduction of new types of liability;
- restructures, mergers or disposals;
- the entry into new, or changes to existing, reinsurance and other risk transfer arrangements;
- changes to the way the firm maintains and manages its MA portfolio(s); and

- other changes to the scope of the MA portfolio(s), including the removal of MA asset types or liabilities and changes to the features of any MA asset or liability covered by the original application.

9.3 In the first instance a firm should form its own judgement on whether a change to its MA portfolio(s) requires it to apply for a variation of its MA permission. The PRA expects a robust process to be in place to assess such a change.

9.4 The PRA expects that any material change to the management or scope of an MA portfolio after permission has been granted will require a variation of the MA permission. In assessing whether a change is material such that a variation of MA permission is required, it will be necessary for a firm to consider (among other things) the scope of the firm's existing MA permission, including whether proposed new assets or liabilities have the same features as those included in the existing MA portfolio. The PRA considers that in cases where a firm invests in a new asset type, or seeks to include assets or liabilities with more bespoke characteristics, it may be more difficult to demonstrate this.

9.5 Examples of circumstances in which assets and liabilities may have new features compared to those of assets and liabilities covered by the existing MA permission, and for which the PRA expects that a new application is likely to be needed include (but are not limited to):

- bulk purchase annuities with collateralisation where any existing bulk purchase annuities within the MA portfolio are not collateralised;
- assets with HP cash flows where existing assets do not have HP cash flows or where new features are present;
- assets involving restructuring, pairing or grouping as referred to in the asset restructuring section in Chapter 2 of this SS (paragraphs 2.52 to 2.61A); and/or
- assets with a different form of early repayment compensation clauses to those already included in the MA portfolio (for example, assets with modified Spens clauses when existing assets in the MA portfolio only have full Spens clauses).

9.6 The PRA also notes that reinsurance arrangements are often bespoke. For this reason, the PRA expects that it is unlikely that new reinsurance arrangements will have the same features as assets covered within the scope of an existing MA permission. In most cases, the PRA expects that the inclusion of a new reinsurance arrangement in an MA portfolio will require PRA approval to vary the firm's MA permission.

Delegation of authority to submit MA applications

9.6A The PRA recognises that the frequency with which a firm's board meets may result in submitting an MA application to the PRA taking longer than would otherwise be the case if

full board sign-off were not required. The PRA considers that the board of a firm may delegate authority for approval and submission of initial MA applications and applications to modify the scope of existing MA permissions to a suitable sub-committee of the board or to approved senior managers.

9.7 [Deleted]

9.8 [Deleted]

9.9 [Deleted]

Changes to an MA portfolio without a variation in MA permission

9.10 Where a firm considers that a change to its MA portfolio will not require a variation of its MA permission, the PRA expects the firm to be able to demonstrate the basis for its determination if required. The PRA may also ask the firm to demonstrate that the MA portfolio meets the criteria set out in paragraph 9.1A above.

9.11 If a firm makes changes to its MA portfolio without obtaining approval from the PRA to vary its MA permission, and if these changes are outside the scope of what is contemplated in paragraph 9.1A above, this would constitute a breach of Matching Adjustment 2.1, in respect of which the PRA would consider exercising its supervisory powers. If changes made to the MA portfolio result in a breach of the MA eligibility conditions, then the firm will need to restore compliance with the relevant condition(s) within two months in order to avoid a reduction to the MA.

9.12 The PRA expects a firm making a change to its MA portfolio without first making an application for an MA permission to have appropriate contingency plans in place to mitigate the implications of a subsequent determination that a variation of its MA permission was required. The PRA may require that the firm suspends the effect of the changes to the MA portfolio pending consideration of a new application by the firm to vary its MA permission.

Appendix 1: PRA Matching Tests

In previous communications with firms, the PRA has described other versions of these tests. The tests described below are the most recent versions.

Test 1: Accumulated Cash Flow Shortfall Test

A description of this test is as follows. Firms should:

- project best estimate liability cash flows in an MA portfolio at annual (or more frequent) intervals;
- project cash flows from assets in component A, after being adjusted for that part of the FS that corresponds to the PD, at annual (or more frequent) intervals;
- calculate any cash flow surpluses and shortfalls arising in each time interval and accumulate them at the risk-free rate;
- note the highest accumulated shortfall from all future time intervals in the projection; and
- calculate the present value of liabilities in an MA portfolio (at the valuation date) discounted at the risk-free rate.

The frequency of the time intervals used for the cash flows in this calculation should be consistent with the method the firm uses to conduct its matching.

Threshold rate: the maximum accumulated shortfall in any time interval of the projection should not exceed 3% of the present value of liabilities.

Firms should carry out this test on a regular basis (monthly if they are writing new business in the fund and quarterly otherwise).

Test 2: 99.5th Percentile Value at Risk (VaR) Test

A description of this test is as follows:

- firms should calculate the 99.5th percentile 1-year VaR of an MA portfolio for each of the following risks: interest rate, inflation and currency. For assets with HP cash flows, the calculation for each risk should be conducted using stressed cash flows that are consistent with the scenario being modelled;
- the calculations should consider the change in the value of both the assets and the liabilities within the portfolio as a result of each stress;
- the PRA expects firms to calculate undiversified capital requirements corresponding to a confidence level of 99.5% over a 1-year period for each of the risks specified in the first bullet point above. Where firms split a risk into components (such as might

be the case for interest rate and currency risk), the PRA asks firms to aggregate these components into a single capital number for that risk, and to explain the approach adopted in determining this single number;

- the PRA expects firms to determine the best estimate liabilities of an MA portfolio, calculated by discounting at a rate equal to the relevant basic risk-free interest rate plus the MA;
- firms should then compute six statistics: the undiversified 99.5th percentile 1-year VaR capital requirement for an MA portfolio for each of interest rate, inflation and currency risks, and the result of dividing each of these capital requirements by the best estimate liabilities of that MA portfolio; and
- for the purposes of this calculation, the assets to be included are those hypothecated to components A and B, ie those that are required to cover the best estimate value of the liabilities.

Threshold rate: the undiversified 99.5th percentile 1-year VaR capital requirement should not exceed 1% of the firm's calculated best estimate liabilities for any of the three risks.

Firms should carry out this test on a regular basis (at least quarterly in line with SCR calculations).

Test 3: Notional Swap Test

The aim of this test is to establish by how much the MA would change if the firm were able to eliminate any surplus or shortfall in its net (asset less liability) cash flows by investing in a 'notional swap' that simulated a perfectly matched position.

Firms are asked to set out:

- the notional MA calculated by using the actual assets hypothecated to component A only (ie firms should state the amount of MA in bps);
- the notional MA calculated by scaling the market value and cash flows (after being adjusted for that part of the FS that corresponds to the PD) of the assets in component A either up or down by a single factor until the present value of the future surpluses and shortfalls is zero when discounted at the basic risk-free interest rate (also referred to as the 'notional swap approach'); and
- the market value of the assets in component A after they have been scaled in accordance with the above.

The frequency of the time intervals used for the cash flows in this calculation should be consistent with the method the firm uses to conduct its matching.

Threshold rate: there is no specific hurdle rate set for this test but the PRA would expect firms to explain where the scaling factor as calculated above showed a ratio above 100% or below 99%.

Firms should carry out this test on a regular basis (at least quarterly in line with SCR calculations).

Test 4: MA Loss Test for assets with HP cash flows

The aim of this test is to establish by how much the MA would change if the cash flows on assets with HP cash flows were to be received in a manner that minimises the MA benefit that may be earned.

A description of this test is as follows. Firms should:

- for each asset with HP cash flows, determine the cash flow profile, consistent with the contractual terms, that results in the lowest possible MA benefit;
- (optionally:) where the cash flows are now expected to be received earlier than in the base case, assume that the expected proceeds are reinvested for the balance of the original term in assets with the same FS sector and credit quality at a prudent reinvestment spread above the risk-free rate, less the FS the replacement assets would incur;
- sum across the portfolio the potential loss of MA benefit; and
- divide the total potential loss in MA benefit by the MA benefit being claimed on the entire MA portfolio.

Threshold rate: the maximum loss in MA benefit should not exceed 5% of the MA benefit being claimed.

Firms with assets with HP cash flows should carry out this test on a regular basis (monthly if they are writing new business in the fund and quarterly otherwise).

Test 5: Modified Accumulated Cash Flow Shortfall Test

The aim of this test is to establish the increase in the extent to which firms may be forced sellers of assets to meet liability cash flows where HP cash flows are received later than expected, or are of a lower amount than expected.

A description of this test is as follows. Firms should:

- project best estimate liability cash flows in an MA portfolio;
- project cash flows from assets in component A, after being adjusted for that part of the FS that corresponds to the PD;

- for assets with HP cash flows, assume that the cash flows are extended to the latest date possible under the contract, taking credit for any coupons (including coupon step-ups) that arise from the extension;
- calculate any cash flow surpluses and shortfalls arising and accumulate them at the risk-free rate;
- note the highest accumulated shortfall from all future periods in the projection; and
- calculate the present value of liabilities in the MA portfolio (at the valuation date) discounted at the risk-free rate.

The frequency of the time intervals used for the cash flows in this calculation should be consistent with the method the firm uses to conduct its matching.

Threshold rate: the maximum accumulated shortfall in any period of the projection should not exceed 5% of the present value of liabilities.

Firms with assets with HP cash flows should carry out this test on a regular basis (monthly if they are writing new business in the fund and quarterly otherwise).

Annex – SS7/18 updates

This annex details the changes that have been made to this SS following its initial publication in July 2018:

2024

November 2024

This SS has been updated alongside the publication of Policy Statement (PS) 15/24 - Review of Solvency II: Restatement of assimilated law.²⁷ This includes updating all previous references to the Commission Delegated Regulation (EU) 2015/35 so as to now refer to the relevant rule(s) in the PRA Rulebook. In addition, the following changes were made:

- all references to SS15/15 ('Solvency II: approvals') have been deleted (because that SS has been deleted);
- paragraph 1.4A has been deleted as it is no longer relevant given the other updates;
- a small amendment has been made to the footnote attached to the first bullet point in paragraph 1A.3 for greater clarity;
- paragraph 8.1A has been updated to reflect that the requirements relating to the MALIR are now effective (from 31 December 2024);
- minor typographical corrections have been made to paragraphs 1A.6, 2.12D, 2.28, 4.13, 5.32 and 8.4, and to the footnote attached to paragraph 2.2; and
- the section on MALIR in Appendix 1 has been deleted as these requirements are in the MALIR instruction (log file).

June 2024

This SS has been updated to reflect the PRA's final policy on Solvency II MA reforms. This is set out in Policy Statement (PS) 10/24 - Review of Solvency II: Reform of the Matching Adjustment.²⁸ In addition:

- Appendix 2 ('Mapping table for Directors' letters included in the SS') has been deleted.
- References to legislation and PRA rules in several paragraphs and footnotes have been updated where necessary.

²⁷ www.bankofengland.co.uk/prudential-regulation/publication/2024/november/review-of-solvency-ii-restatement-of-assimilated-law-policy-statement

²⁸ www.bankofengland.co.uk/prudential-regulation/publication/2024/june/review-of-solvency-ii-reform-of-the-matching-adjustment-policy-statement.

- Some minor typographical corrections (including minor rewordings for greater clarity) have been made throughout the SS.

Paragraphs 5.17 to 5.41 are all new relative to the July 2018 version of this SS. However, some of the paragraphs that were introduced in response to Consultation Paper (CP) 19/23 – Review of Solvency II: Reform of the Matching Adjustment have been deliberately labelled with a combination of numbers and a letter (eg 5.22A).

This policy is effective from 30 June 2024.