



**BANK OF ENGLAND
PRUDENTIAL REGULATION
AUTHORITY**

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Solvency II: matching adjustment

The PRA is committed to ensuring that firms are aware of the PRA's thinking on Solvency II. Today, in advance of the Solvency II conference on Friday, this communication provides further clarity to firms that are intending to apply for the matching adjustment (MA) and outlines the PRA's expectations. Specifically, it answers a number of questions firms have already asked on the interpretation of the eligibility criteria in Article 77(b) of the Solvency II Directive and the nature of the evidence the PRA expects firms to submit to demonstrate compliance with these criteria.

The second part of this communication provides feedback on the exercise which took place over the summer, in which we asked firms to undertake a trial MA submission. The feedback should be taken into account by firms when preparing either their pre-application matching adjustment submissions (which can be submitted between 1 December 2014 and 6 January 2015) or their formal applications (which can be submitted from 1 April 2015). Firms should notify their normal supervisory contact by 30 November 2014 if they wish to participate in the MA pre-application process. The PRA will also provide feedback following the pre-application process, which will help firms with their formal applications.

This letter and attachment should be read alongside consultation paper (CP) 23/14: Solvency II approvals issued today. If firms have any questions on any aspect on this communication, they should be addressed in the first instance to their usual supervisory contact.

Yours sincerely

A handwritten signature in black ink, appearing to read 'P Fisher', with a long horizontal flourish extending to the right.

Paul Fisher
Executive Director, Insurance Supervision

Information for matching adjustment applications

Introduction

The matching adjustment (MA) is an adjustment to the risk-free interest rate term structure used to calculate the best estimate of a portfolio of eligible insurance obligations. Its use is subject to prior supervisory approval where certain eligibility criteria are met. These eligibility criteria are set out in Article 77(b) of the Solvency II Directive¹.

The procedures to be followed by firms and supervisors during the MA approval application process are detailed in draft Solvency II Regulations (Implementing Technical Standards). The PRA has also set out some additional information about the application process in CP23/14: Solvency II approvals². The PRA is aware that firms have questions about the:

- a. interpretation of the eligibility criteria in Article 77(b) of the Directive; and
- b. nature of the evidence the PRA expects firms to submit to demonstrate compliance with these criteria.

The purpose of this communication is to clarify the PRA's expectations and to offer guidance to firms on both of these points. It is not exhaustive. It also contains feedback on firms' MA trial submissions (page 13 onwards). Firms should read this communication in conjunction with CP23/14: Solvency II approvals.

General Principles

Compliance with all Solvency II Directive requirements

The PRA reminds firms that, as well as needing to meet the requirements of Article 77b, firms must carefully assess, and be able to demonstrate, their compliance with the requirements for risk management and the prudent person principle that are detailed in the Solvency II Directive and draft Solvency II Regulations.

The PRA will review firms' portfolios bearing in mind the fundamental rationale underpinning the use of the MA, as described in Recital 31 of the Solvency II Directive.

Case-by-case assessment of asset eligibility

¹ Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II) (recast) (Text with EEA relevance).

<http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1412873282412&uri=CELEX:02009L0138-20140523>

² PRA CP23/14, Solvency II approvals, October 2014:

<http://www.bankofengland.co.uk/pru/Pages/publications/cp/2014/cp2314.aspx>

The eligibility criteria in Article 77(b) define specific behavioural features that the asset portfolio (and in some cases the individual assets within it) must have. These behavioural features are what determines eligibility, rather than the notional class to which an asset (or group of assets) belongs. For this reason, there is no prescribed 'closed list' of acceptable asset types. Instead, firms must apply their judgement, and carefully demonstrate that their portfolios are compliant with the criteria laid out in the Solvency II Directive.

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

Risk transformation transactions

The PRA recognises that firms may undertake certain risk transformation transactions in order to ensure that the portfolio of assets they hold is eligible. In particular, firms may consider entering into securitisation transactions or putting in place hedging arrangements, specifically to demonstrate compliance with the criteria in Article 77(b).

The PRA expects firms to consider carefully the nature of any transactions or arrangements they enter into for the purposes of obtaining MA approval, including the behaviour of these arrangements 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 Solvency II Regulations to understand the features that underpin higher quality securitisations.

Firms should also demonstrate that they have considered any new risks generated by risk transformation arrangements, such as counterparty exposure, and how they have accounted for these.

Demonstration of Asset Eligibility

Pairing or grouping of assets

Article 77b(1)(c) requires that the expected cash flows of the assigned portfolio of assets replicate each of the expected liability cash flows in the same currency. The PRA does not consider that this necessitates individual assets being denominated in a particular currency, provided that replication can be demonstrated by considering the cash flows of assets in aggregate. The requirement for the portfolio to consist of “*bonds or other assets with similar cash-flow characteristics*” could also potentially be satisfied by considering relevant pairings or groupings of assets. As noted above, firms should carefully consider how such arrangements comply with the Solvency II Directive requirements on risk management and on the prudent person principle. This includes considering the reliability and predictability of such arrangements under stressed conditions.

Partial recognition of an asset's cash flows

The PRA considers that assets that produce both fixed and non-fixed cash flows would not necessarily be excluded under the eligibility criteria in Article 77b in cases where only the fixed cash flows are taken into account for the purpose of demonstrating cash-flow matching.

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 the matching portfolio, and take the full asset value into account when calculating the matching adjustment in accordance with Article 77c(1)(a)(i) of the Solvency II Directive.

Callable bonds

The PRA's view is that 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 partially recognised in the demonstration of cash-flow matching (provided that the asset also meets the other eligibility criteria). Firms may also be able to demonstrate that the redemption payment from a callable bond can be regarded as being fixed if, for the purposes of demonstrating matching, it is only recognised at its final redemption date (and providing such a fixed date is specified in the bond's contractual terms).

The PRA recognises that firms may be considering alternative treatments of callable bonds to that set out above. However, firms should note that where they are making assumptions about the future cash flows they will receive on an asset this exposes the firm to the risk of these assumptions changing over time and to the risk of actual cash flows being lower than assumed.

Both of these risks would seem to pose an obstacle to firms being able to demonstrate matching as required by Article 77b(1)(c).

Cash flows directly dependent on realisable property values

Where a cash flow is directly dependent on the realisable value of property, the PRA's view is that such uncertain cash flows cannot be regarded as fixed (irrespective of whether a firm proposes only to recognise a 'prudent estimate' of the cash flow's value).

Market standard redemption clauses

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.

The PRA considers that the requirement in Article 77b(1)(h) that "*the cash flows of the assigned portfolio of assets are fixed and cannot be changed by the issuers of the assets or any third parties*" does not necessarily disqualify all assets that are subject to early redemption/termination rights at the option of the issuer or a third party.

Certain categories of early redemption or termination rights would clearly fall foul of the eligibility criterion in Article 77b(1)(h), for example rights of redemption or termination that are entirely at the discretion of the issuer or third party.

But there are other categories of rights of redemption or termination that the PRA considers are less likely to undermine the requirement for predictability of cash flows that underlies the requirement in Article 77b(1)(h). 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.

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

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

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 this could be mitigated. Such consideration should form part of a firm's Own Risk and Solvency Assessment (ORSA).

Make-whole clauses

Where assets have cash flows that may be changed at the request of the issuer or a third party, a derogation from Article 77b(1)(h) allows these assets to be eligible if firms are able to demonstrate clearly that the compensation they would receive in the event of a change in the cash flows would be sufficient to negate any reinvestment risk.

The PRA considers that firms may be able to satisfy this requirement by demonstrating that "*sufficient compensation*" will be received on the basis of an adequate contractual compensation clause.

Where firms rely on a compensation clause in the form of a standard³ Spens clause (or equivalent), the PRA expects firms to demonstrate that the:

- a. reference gilt used is suitable given, for example, the term to maturity of the asset in question; and
- b. remaining cash flows that are discounted correspond to those assumed in the demonstration of cash-flow matching.

Where firms rely on modified Spens clauses (or equivalent), the evidence described above should be provided and, in addition, firms should demonstrate that:

- a. The adequacy of the compensation clause 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) would need strong justification. Where holdings of individual assets are material, firms should carry out this assessment at asset level.

³ Here, 'standard' is taken to mean that the remaining cash flows are discounted using a reference gilt rate.

- b. 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 demonstrate that there is negligible risk of the modified Spens clause not providing sufficient compensation in the future.
- c. There is sufficient liquidity in the market (taking into account stressed conditions) to be able to buy an asset in the same class 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).

If there is no make-whole clause as described above, an alternative arrangement will be necessary that has equivalent effect. However, the effectiveness of the arrangement will need to be demonstrated and firms will also need to take account of the considerations set out above.

Reinsurance assets

The PRA considers that the requirement in Article 77b(1)(h) will not necessarily disqualify reinsurance assets, provided that firms can demonstrate the following:

- a. any variation in timing/duration and quantum of cash-flows from the reinsurance asset (that is not otherwise captured by subparagraphs 2 or 3 of Article 77b(1)), 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;
- b. 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;
- c. the (re)insurance obligations that are covered under the reinsurance asset are properly included in the MA portfolio (ie they satisfy all the relevant eligibility criteria in Article 77b);
- d. the reinsurance asset satisfies all the other criteria for eligibility of matching assets in Article 77b(1) (eg including that it is structured in such a way that it produces cash flows with similar characteristics as the cash flows of bonds); and
- e. the inclusion of the reinsurance asset in the MA portfolio is consistent with the assumptions underlying the MA. In particular, that it is consistent with the assumption underlying Article 77b that insurance and reinsurance undertakings will hold the matching assets to maturity.

The PRA expects that, at a minimum, a similar demonstration would be provided for any other asset where cash flows vary with the underwriting risks in Article 77b(1)(e).

Collective investment schemes

Where a firm proposes to include holdings in collective investment schemes or mutual funds within the assigned portfolio of assets, the PRA expects the firm to 'look through' to the underlying assets and demonstrate that these meet all of the eligibility criteria.

Further, firms should demonstrate that the fact of these assets being held within a collective investment scheme or mutual fund structure rather than being held directly does not in any way compromise the firm's ability to ensure that the underlying assets are managed in a way that meets the Solvency II Directive criteria. For example, the firm needs 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.

Cash items

The PRA considers that it may be possible for firms to demonstrate that cash items are compatible with the eligibility criteria in Article 77b, provided that the inclusion of cash in the portfolio can be shown to facilitate efficient portfolio management, including risk management.

Demonstration of liability eligibility

Surrender options

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 Article 77b(1)(g).

When demonstrating their compliance with this Article, the PRA expects firms to, at least:

- a. undertake a qualitative assessment of each contract that is proposed for inclusion in the MA portfolio, to identify those contracts where the surrender basis is non-discretionary (or only contains limited discretion)⁴. 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;

⁴ 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.

- b. demonstrate that none of the contracts proposed for inclusion could cause a surrender loss that is material in the context of the MA portfolio, including under stressed conditions. This should include consideration of possible correlation effects between contracts. One possible mitigation for larger/more material policies could be to demonstrate that an individual surrender basis can and will be used for these policies;
- c. provide evidence that the management of the surrender basis has not historically led to losses at portfolio level; and
- d. 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 surrender basis would be used for specific contracts then this should be described separately in each case.

It should be noted that, 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 demonstrating compliance with Article 77b(1)(g).

Premium adjustment clauses

Certain contracts contain premium adjustment clauses that permit 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 would necessarily lead to a contract giving rise to future premium payments (as per Article 77b(1)(d)) 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.

Deferred premiums

Some contracts offer the option for the premium to be paid as a (larger) initial sum followed by a series of smaller instalments. These contracts could be argued to notionally consist of two parts; a 'paid up' part, and a part on which additional premiums are yet to be paid. The PRA does not view any approach that notionally splits a contract into parts as being compatible with Article 77b(1)(j). 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.

Demonstration of matching

The PRA expects firms to include evidence showing that they comply with both parts of the matching requirement in Article 77b(1)(c).

To demonstrate that “*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*”, the PRA’s view is that firms should carry out a quantitative cash-flow based projection assessing the extent of any cash-flow surplus or deficit arising in each future year.

To demonstrate that “*any mismatch does not give rise to risks which are material in relation to the risks inherent in the insurance or reinsurance business to which the matching adjustment is applied*”, the PRA expects firms to submit a quantitative assessment of the interest rate, currency, inflation 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 the MA portfolio as a whole.

Management of the MA portfolio

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

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

- a. accounting systems;
- b. investment policy and mandates;
- c. processes and controls, including controls to ensure that the assets within the portfolio will not be used to cover losses arising elsewhere;
- d. governance; and
- e. management information.

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 disqualify firms from complying with Article 77b(1)(b), provided the firm can show that systems and controls are in place at a sufficient level of granularity to ensure that the MA portfolio can be identified, managed and organised separately from the other activities of the firm and that the assets in the MA portfolio cannot be used to meet losses arising from the other activities of the undertaking.

Extraction of surplus

In their applications, firms will be required to describe the process by which they will maintain the MA portfolio on an ongoing basis. The PRA expects the governance process around any extraction of surplus to be robust, and to include:

- a. an assessment of the firm's ability to continue to meet the MA requirements post-extraction;
- b. a rigorous profit and loss (P&L) attribution for the MA portfolio that clearly shows how the surplus has arisen (ie that it has arisen due to a change in either the expected asset or liability cash-flows); and
- c. clear threshold(s) for assessing whether a change in cash-flows is 'material'.

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) this surplus would not satisfy the conditions for extraction.

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 firms to argue that cash flows have materially changed, and as a result it may be possible for a firm to substitute assets to allow for the fact that they now have un-needed cash flows.

Transferability and recognition of diversification

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

Calculation of the MA

Use of EIOPA's fundamental spreads

For the purposes of calculating the MA, the PRA expects firms to apply only those fundamental spreads laid down by any technical information made by EIOPA under Article 77e(1)(b) of the Solvency II Directive and adopted in the Solvency II Regulations under Article 77e(2) of the Solvency II Directive. In the event that an asset held by a firm does not correspond perfectly 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 their application.

Increase of the fundamental spread for sub-investment grade assets

Article 77c(1)(c) requires that the fundamental spread be increased where necessary to ensure that the MA for sub-investment grade assets does not exceed the MA for “*assets of investment grade credit quality and the same duration and asset class*”. The PRA’s view is that the intention of this requirement is to ensure that the MA for assets of credit quality step 4 or below does not exceed the MA for assets of the same asset class and duration that are of credit quality step 3.

Feedback on matching adjustment trial submissions and PRA expectations for pre-application submissions

Introduction

The PRA recognises that firms are currently planning for the pre-application and application phases of MA approval. During June 2014 the PRA invited firms to make a voluntary trial submission of the items of evidence required by the draft MA Solvency II regulations⁵. Having reviewed the trial submissions, this section sets out the PRA's feedback with the intention of further clarifying the PRA's expectations of MA (pre-) application submissions.

This section is therefore relevant to all firms intending to participate in the MA pre-application and/or intending to apply formally to use the MA.

General comments

It was clear that firms had invested time and thought in producing trial submissions. Firms identified a number of areas where the Solvency II Directive requirements in respect of the MA were unclear and this has informed the content of this communication.

The issues identified by firms tended to focus on asset or liability eligibility criteria, and submissions were generally less extensive in other areas. Notable gaps were a lack of evidence demonstrating:

- a. how firms would calculate the MA;
- b. how firms would manage the MA portfolio; and
- c. what information firms would include in the liquidity plan.

Asset Eligibility

Identification of optionality within assets

Firms gave varying levels of detail when setting out the circumstances in which asset cash-flows could be changed by the issuer or a third party. The best submissions described the processes that were in place to identify all sources of optionality within the assets held. These sources of optionality were then discussed, with reference to the legal clauses within the asset documentation where necessary, to support the argument for inclusion of the assets within the portfolio.

Reinsurance assets

⁵ Letter on trial submission of materials to approve the application for a matching adjustment June 2014: <http://www.bankofengland.co.uk/pr/Documents/solvency2/matchingadjustmenttrialsubmission13june2014.pdf>

The PRA's expectations in respect of reinsurance assets are set out earlier in this communication. Trial submissions did not suggest that firms had considered the ability of the reinsurer to change the cash-flows on the reinsurance asset, or whether in light of this the reinsurance asset could be considered eligible for inclusion in the MA portfolio. The PRA expects all sources of optionality within any asset to be considered against the eligibility criteria.

Equity release mortgages

It is not possible to give a definitive view on the eligibility of equity release mortgages as an asset class because of the wide variation in the features that such assets possess. However, some features are common to most equity release mortgages, such as cash flows that depend on longevity, morbidity, and the realisable value of property, and exposure to prepayment risk. In the PRA's view, an asset with this combination of features is very unlikely to be compatible with the eligibility criteria in Article 77b.

In their trial submissions, some firms attempted to demonstrate that the un-modified cash flows from equity release mortgages could be compliant with the Article 77b criteria. However, firms did not submit convincing evidence that this was possible.

The PRA expects that firms will need to undertake restructuring or hedging actions to transform the cash flows of such assets into an eligible format.

Firms that intend to engage in such restructuring of their portfolios should discuss their plans with their supervisor at the earliest opportunity and should also be considering contingency options in case it is not possible to restructure the assets in a way that meets the eligibility criteria.

Some of the PRA's expectations regarding assets that have cash flows that vary with one or more of the underwriting risks mentioned in Article 77b(1)(e) are also discussed earlier in this communication. In relation to equity release mortgages, only one firm explicitly discussed basis risk when attempting to demonstrate that the longevity component in the asset cash-flows would replicate that in the liability cash flows.

Firms did not generally discuss the morbidity component of the asset cash flows, which is present for example where the mortgage can be repaid if the mortgagee enters long-term care. The PRA's view is that the cash-flow variability introduced by this morbidity component cannot be argued to reflect corresponding variability in the liability cash flows, since morbidity risk is not one of the underwriting risks to which eligible liabilities can be exposed (as set out in Article 77b(1)(e)).

Pairing/grouping of assets

When providing a line-by-line itemisation of the proposed assets for the MA portfolio, some firms clearly indicated those cases where pairs or groups of assets needed to be considered in combination to demonstrate that the portfolio had fixed cash-flows. The PRA's view is that such an indication is one way that firms can demonstrate that they have considered this issue at a sufficient level of granularity.

Liability eligibility

Identification of all features relating to liability exposures

Firms' submissions contained differing levels of detail about the size and nature of their liabilities. The best submissions included a comprehensive breakdown of liabilities, with systematic identification of policyholder options and relevant contractual terms (such as the ability of the policyholder to transfer their policy, or the potential for future premium adjustments). Where submissions only described the liabilities at a high level, it was not possible for the PRA to assess whether the liabilities would meet the Solvency II Directive requirements for the MA.

The liability breakdowns that firms provided tended to be qualitative rather than quantitative in nature. The PRA expects firms to submit a sufficiently comprehensive quantitative breakdown as part of their applications showing, for example, the number and value of each type of contract.

Provision of quantitative evidence to demonstrate compliance with SII requirements

Some firms failed to provide the expected quantitative evidence to demonstrate compliance with the mortality risk threshold in Article 77b(1)(f) of the Solvency II Directive.

When attempting to demonstrate compliance with Article 77b(1)(g), only a small number of firms provided quantitative evidence to support the assertions made in their submissions, and this evidence tended to be limited. The PRA expects firms to submit strong quantitative evidence to support their arguments in this area.

Consideration of contract features/policyholder options against all relevant SII requirements

Some firms proposed to include contracts that would potentially not comply with either Article 77b(1)(d) or Article 77b(1)(g) of the Solvency II Directive, but had only considered one of these Articles when arguing that the contract in question was eligible. Where firms have liabilities with features or options that could be non-compliant with the Solvency II Directive criteria, the PRA expects firms to consider these features or options against all of the relevant Solvency II requirements, rather than just the requirement(s) that the firm considers to be most material.

In assessing the risks associated with the exercise of surrender options, firms did not tend to consider elements such as:

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

The PRA expects these considerations to form a part of a firm's risk and liquidity management of the MA portfolio(s) and for this to be evidenced in the application.

Assessment of matching

Overall Comments

Firms provided a range of evidence when attempting to demonstrate that the matching requirements of Article 77b(1)(c) of the Solvency II Directive were met.

The PRA recognises that some firms' liabilities are 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. Firms did not provide compelling evidence to justify or explain how these liabilities could be matched according to the requirements in Article 77b(1)(c).

For the purpose of assessing the overall level of matching, the clearest submissions from firms tended to split the assigned portfolio of assets into the following components:

- a. component A – assets whose cash-flows replicate the expected liability cash-flows after being adjusted for the component of the fundamental spread that corresponds to the probability of default;
- b. component B – additional assets that, when added to component A, result in the value of the assigned portfolio (ie components A and B combined) being equal to the best estimate of the liabilities within the MA portfolio; and
- c. component C – further assets that are deemed 'surplus' for the purpose of covering the liabilities, but which may or may not still be needed to demonstrate compliance with the other MA requirements.

Firms also calculated (or suggested) a range of different quantitative metrics and tests to demonstrate the closeness of their cash-flow matching. Having considered this evidence, and while accepting that firms are free to submit evidence against Article 77b(1)(c) in any format they choose, for the pre-application phase the PRA intends to request that firms submit certain pieces of information in a specified format, and to use this to conduct some standardised tests. This will allow the PRA to compare results across firms in a consistent way, as well as to form a view on what is an acceptable tolerance regarding the closeness of matching. Details of the information the PRA intends to request will be sent to firms shortly.

Management of the MA portfolio

The evidence submitted in respect of Article 77b(1)(b) was relatively sparse and this was one of the least well-developed areas of firms' trial submissions. The PRA expects considerably more evidence to be provided at the (pre-) application stage.

The PRA also expects this evidence to cover explicitly both parts of Article 77b(1)(b) (i.e. the need to properly identify, organise and manage the MA portfolio separately and the need to demonstrate that the assigned portfolio of assets will not be used to cover losses arising from other activities of the undertaking). Few firms appeared to recognise this distinction in their trial submissions.

On administrative grounds, some firms proposed to include assets and/or liabilities that they considered to be ineligible within the MA portfolio. The PRA's view is that this is not compatible with the Solvency II Directive requirements as the MA portfolio can only contain items that comply with all of the eligibility criteria. However, firms can jointly administer eligible and ineligible assets or liabilities under the conditions described earlier.

When attempting to demonstrate that Article 77b(1)(a) was met, well-supported submissions contained evidence to demonstrate that:

- a. the investment policy for the assets in the MA portfolio would be based on a buy-to-hold principle (although certain assets such as interest rate and currency swaps might be actively rebalanced to manage the risk profile of the fund, and other assets might be sold for risk management purposes (see below)). The investment policy would distinguish this approach from speculative strategies designed to benefit from anticipated price movements over short-term investment horizons.
- b. there would be a regular (eg monthly) process which, allowing for new business written, ensured appropriately close cash-flow matching. This process would identify whether the cash-flow matching was within accepted tolerances. Where the matching had fallen outside of tolerance, action would be taken to address this.
- c. there would be a regular (eg quarterly) process to compare the value of the assigned portfolio of assets (components A+B+C) with the best estimate of the MA liabilities. This would capture and reflect any changes in insurance decrement assumptions.

Firms identified in their submissions that the assignment of assets to liabilities could change if there was a change in the future expectations of asset cash flows, either in absolute terms or relative to other similar instruments. The best submissions explicitly linked the firm's policy on asset trading to risk management objectives, and clearly demonstrated an intention to hold the new assets to maturity.

The PRA would also expect firms to evidence a process by which trades made within the MA portfolio are reported regularly to senior management. Very few firms provided this evidence. The PRA expects to be able to review such information as part of its ongoing supervision of firms applying the MA.

Transferability and Diversification

Firms' trial submissions provided limited evidence in respect of transferability and diversification. In most cases firms stated that they considered any restriction on transferability or diversification to be either immaterial or irrelevant to them, but did not provide any convincing evidence to justify this. The PRA expects firms to provide more evidence on these areas in their (pre-) application submissions.

Calculation of the matching adjustment

The strongest trial submissions from firms contained full calculation spreadsheets including all of the relevant inputs published by EIOPA (ie the risk free rate term structure and the separate components of the fundamental spread for each asset).

In their calculations, most firms used asset and liability cash flows at the most granular level available, usually monthly. The more developed trial submissions contained the details of these cash flows. The PRA expects all firms' (pre-) application submissions to include a sufficient level of detail for the MA calculation to be verified.

Various approaches were proposed to demonstrate that excess assets (whose cash flows are not required in order to demonstrate matching) had been excluded for the purposes of the MA calculation. The two most common were:

- a. explicitly identifying the sub-portfolio of assets where expected cash flows are used in the demonstration of cash-flow matching; and
- b. a 'notional swap' approach, which emulates a perfectly matched position by scaling the market value of the assigned portfolio of assets up or down such that asset cash flow excesses and shortfalls, when discounted at the risk-free rate, sum to zero.

At this stage the PRA does not have a preference as to the approach used in the calculation.

The PRA expects firms using a sub-portfolio approach to indicate, via the line-by-line asset listing, which of their assets form part of the sub-portfolio.

Where firms propose to use an alternative approach such as a 'notional swap', the PRA expects full details of the calculation methodology to be provided in the application to enable the calculation to be verified.

The PRA does not currently have a preferred approach as to how firms should reflect the fundamental spread within the MA calculation, or how firms should apply the cap on the MA for sub-investment grade assets. This may change once the PRA has reviewed more applications; this will be communicated accordingly. All firms are expected to justify their chosen approach and to ensure that the detailed calculations are provided and are easily followed.

Some firms proposed to perform the MA calculation by extending the annual effective rate approach set down in Article 77c(1)(a), so that it incorporates all components of the fundamental spread and not only the part corresponding to probability of default (or 30% of the long-term average spread). The PRA recognises that this approach has advantages from the point of view of consistency, as all of the components of the fundamental spread are allowed for in the same way.

Liquidity Plan

MA (pre-) applications will need to include a copy of the liquidity plan that is required under Article 44(2) of the Solvency II Directive. Few firms provided detailed responses in this area in their trial submissions, and a number of firms asked the PRA to clarify what was expected.

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. Further, it is not for the PRA to prescribe the format of any of the evidence required by the MA draft Solvency II Regulations, as this evidence can be submitted in the format of firms' choosing. However, the PRA had the following observations on firms' trial submissions:

- a. The strongest submissions contained a clear definition of liquidity risk in the context of the MA. They explicitly identified the sources of liquidity risk, and provided a detailed consideration of how the liquidity plan would be used for risk management and decision making in relation to the MA portfolio.
- b. Stronger submissions also set out what tools would be developed to monitor and manage liquidity risk, including what stress and scenario testing would be performed and what mitigation options were available (eg additional sources of liquidity).
- c. In stronger submissions firms made a good attempt to forecast their cash inflows and outflows accurately, setting out any key assumptions made. Many firms also stated their intention to establish a process of monthly or quarterly review of their liquidity plans, which the PRA considers as good practice.
- d. Some responses from firms referred only to existing liquidity risk management frameworks, without considering how these would be adapted for the specific liquidity requirements of the MA portfolio. The PRA considers that it is useful to understand how the liquidity management of the MA portfolio meshes with the wider liquidity risk management framework. However, the PRA would not view a liquidity plan that only covered eg 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 Article 44(2).
- e. Some firms stated in their liquidity plans that they could sell assets from the MA portfolio to generate liquidity. The PRA did not see any satisfactory explanation of how this approach could be considered consistent with the requirements of the Solvency II Directive, in particular the requirement that the assignment of assets should be maintained over the lifetime of the obligations except where cash flows materially change.