BARNETT WADDINGHAM
beyond the expected

Our response to PRA Consultation Paper 19/23

Craig Turnbull FIA | Partner

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Contents

This report is divided into the following sections:

Executive Summary

CP19/23 proposes reforms to several different and important aspects of the current Matching Adjustment (MA) regulatory system. We believe that many of these proposed reforms may constructively advance both the Prudential Regulation Authority's (PRA's) statutory objectives and the government's objectives for the Solvency UK (SUK) reform program. However, some limited but important aspects of the reforms proposed in CP19/23, specifically those relating to the MA attestation, result in some unnecessary ambiguity and this could reduce the effectiveness of the attestation as a supervisory safeguard.

Our response focuses on these areas of concern and is therefore limited in scope to only 3 of the 21 questions set out in the consultation[1]. A recurring theme underlies these responses – HM Treasury's (HMT's) Solvency II (SII) consultation response of November 2022 effectively rejected the PRA's public argument[2] for the Fundamental Spread (FS) basic calibration to be reformed such that it included the credit risk premia priced into MA assets. We do not offer any view here on whether this is an outcome that is likely to have a positive or negative impact on HMT's reform objectives. However, our view as set out in this response is that the direct consequences of this important policy outcome should be explicitly recognised when the PRA sets expectations for the proposed MA attestation (and, relatedly, FS additions).

In this context, the absence of the term 'credit risk premium' from any part of the consultation paper or the proposed texts in supervisory statements or the PRA rulebook is, we believe, unhelpful. The credit risk premia embedded in the spreads of MA assets are in many cases a material component of those spreads. The lack of any explicit acknowledgement by the PRA of the status of credit risk premia in MA methods and calculations may result in an ambiguity about the PRA's expectations for the MA attestation and for the role of FS additions. This ambiguity is amplified by the lack of consistency between the stated assumptions underlying the MA and the basic FS calibration methodology.

We believe it is unreasonable to expect firms to (implicitly or explicitly) attest to a quality in the regulatory policy (that the MA spread does not include any credit risk premia) that is unambiguously not present when the basic FS is applied to vanilla corporate bonds. The recommendations in our responses below are intended to remove any doubt or ambiguity around the PRA's expectations for the MA attestation and FS additions in this regard.

The recommendations below, if implemented, would result in an MA attestation and FS additions framework that is more clearly aligned to the recent MA policy outcome, whilst remaining focused on the most important underlying supervisory objective of the proposed attestation: that firms take greater ownership of the FSs used in their MA calculations, particularly for those MA assets that have risks and features that may not have not been adequately captured in the basic FS calibration.

[1] Please note we have presented the ordering of our responses so that they naturally flow from one to the next, i.e. our response to question 18 is useful context for our response to question 14, and so we present the response to 18 first.

[2] DP2/22 – Potential Reforms to Risk Margin and Matching Adjustment within Solvency II | Bank of England

Recommendations

The specific recommendations set out in the responses below are:

- Paragraph 1A.3 of SS7/18 should be deleted and / or 1A.6(iv) should be amended so that it no longer refers to 1A.3, thereby clarifying that firms are expected to attest that their MA methods and calculations are consistent with the FS definition that is used in the basic FS calibration (which is developed from the technical assumptions underlying the MA as set out in 1A.4 and which is not consistent with the conceptual assumptions underlying the MA as set out in 1A.3).

- Paragraphs 5.37, 5.38 and 5.39 of the proposed text in SS7/18 should be amended to clarify that the PRA considers it reasonable for the MA spreads of MA assets to include risk premia of a similar size to the credit risk premium that is incorporated into the MA spread of a vanilla corporate bond of comparable credit quality and duration by applying the basic FS, where it can be evidenced that the MA asset can be expected to generate such risk premia.

- In the standardised wording for the attestation statement that is proposed in Paragraph 6.15 of CP19/23, 'the fundamental spread used by the firm in calculating the matching adjustment reflects compensation for all retained risks' should be replaced with 'the fundamental spread used by the firm in calculating the matching adjustment is consistent with the basic FS calibration method, and makes appropriate allowance for any risks and features of MA assets that are not adequately captured in the calibration of the basic FS'.

- The attestation could be made more focused and effective by narrowing its scope to only consider Fundamental Spreads. This could be achieved by deleting 'and the matching adjustment can be earned with a high degree of confidence from the assets held in the relevant portfolio of assets' from the proposed standardised wording for the attestation statement as set out in Paragraph 6.15 of CP19/23.

Question 18

18. Do you have any comments on the PRA's proposals on assumptions underlying the MA?

As the consultation paper notes, the assumptions underlying the MA that are set out in the proposed text of Chapter 1A of SS7/18 are not new proposals, but can be found in various places in the existing Solvency II regulatory framework. Chapter 1A also includes some new proposals. Notably, 1A.6(iv) sets the expectation that firms should consider the assumptions underlying the MA as part of their MA attestation process.

Whilst none of the assumptions underlying the MA are new, they collectively paint a confused picture, particularly when considered alongside the basic FS calibration methodology (discussed further below). Whilst this has made interpreting the fundamental concepts and intentions of the MA difficult since its inception, this somewhat academic difficulty is elevated into a more concrete issue by the expectation that these assumptions should be considered when attesting to the appropriateness of MA methods and calculations.

What belongs in the FS according to the assumptions underlying the MA?

Paragraph 1A.3 states that the FS 'reflects compensation for the risks retained by the firm'. It also states that 'Firms that are suitably well-matched in respect of their assets and liabilities and adopt a hold-to-maturity investment strategy are not exposed to certain risks.' The implication is that as the hold-to-maturity strategy does not expose firms to certain risks, those risks are not retained by the firm, and any compensation available for bearing those risks should therefore not be included in the FS.

The most obvious 'certain risk' in this context is liquidity risk: the conceptual hold-to-maturity investor is not exposed to this risk because they will never sell the asset. So, any compensation for the asset's (lack of) liquidity would not be included in the FS and would therefore be naturally 'admissible' in the MA.

A hold-to-maturity investor remains exposed to credit default risk, and an element of this risk will be non-diversifiable. That is, credit defaults will tend to be positively correlated with each other, meaning the ultimate default loss outcome of a well-diversified portfolio is uncertain (and correlated to other economic risk factors). The hold-to-maturity return earned by credit-risky assets is not risk-free and this credit risk is, in the language of the MA, a risk retained by the firm. The hold-to-maturity investment strategy's expected return will include a credit risk premium as compensation for this risk. 1A.3's definition of the FS ('compensation for risks retained by the firm') implies this credit risk premium should be included in the FS as a retained risk.

However, the outcome for a hold-to-maturity investor does not depend on the mark-to-market price volatility of the assets. So, this could point towards an MA where the asset's credit risk premium may be decomposed into a default risk premium and a market price volatility risk premium. A1.3 could be interpreted to imply that the latter is not a retained risk and therefore does not belong in the FS, whereas the former is a retained risk and therefore does belong in the FS.

These arguments for including liquidity premia and mark-to-market price volatility risk premia in the MA are somewhat diluted by the recognition later in 1A.3 that implementing a hold-to-maturity strategy may require some rebalancing to maintain good matching, e.g. following credit downgrades. So, Paragraph 1A.3's hold-to-maturity investor may ultimately bear some liquidity risk and some mark-to-market price volatility risk, and some component of the compensation for these risks would therefore belong in the FS.

The logical conclusion from the conceptual assumptions set out in Paragraph 1A.3 is therefore that the FS should include expected credit losses (under a buy-and-hold strategy or the actual rebalancing strategy the firm has in place for the given MA asset); the component of the spread that is compensation for default risk; and perhaps some parts of the components of the spread that are compensation for liquidity risk and mark-to-market price volatility risk.

Paragraph 1A.4 sets out the technical assumptions underlying the MA. These closely align with the basic FS calibration method. The technical assumptions are not based on the hold-to-maturity investment strategy, despite this being the foundational conceptual basis for the MA in 1A.3. Instead, in 1A.4 expected credit losses are calculated under a buy-and-immediate-rebalance credit strategy. This strategy again results in some retained credit risk – the outcomes of the strategy will depend on non-diversifiable credit downgrade and default risks – and this retained credit risk will be compensated in the form of a credit risk premium, i.e. the strategy will have an expected return that is greater than it would be if it did not retain any credit risk. The technical assumptions underlying the MA and the basic FS calibration methodology, however, do not include this compensation for the retained risks that arise under this strategy in the FS (except indirectly insofar as they are generated by the Long-Term Average Spread (LTAS) floor).

The FS implied by the technical assumptions underlying the MA and produced by the basic FS method may exceed the expected credit losses under 1A.3's buy-and-hold strategy for two reasons: the expected credit losses produced under the buy-and-immediate-rebalance strategy will be greater than those produced by the buy-and-hold strategy; the LTAS floor may 'bite' adding an increment to the FS. It might be argued that these margins could represent the compensation for retained risks under the buy-and-hold strategy that is required to be included in the FS by Paragraph 1A.3. However, we are not aware of any theoretical or empirical reasons to expect that the margins that are created by the difference in expected losses of the two different rebalancing strategies and the application of the 35% LTAS floor should naturally result in a good estimate of the market compensation for the retained risks that arise under a buy-and-hold strategy.

As noted above, the buy-and-immediate-rebalance strategy will generate a credit risk premium and the technical assumptions underlying the MA and the basic FS calibration methodology do not include any measure of this compensation. The compensation for this retained credit risk is not included in the basic FS calibration methodology except insofar as it is indirectly captured by the LTAS floor[3]. The calibration of the LTAS floor does not[4] generally result in an incremental increase in the FS that is of comparable size to the credit risk premia in vanilla corporate bonds that has been estimated by the PRA[5].

[3] It might also be argued that the parameters in the technical assumptions underlying the MA have deliberately been set to include margins for prudence, and that the basic FS, before application of the LTAS floor, therefore includes a margin over the best estimate of the expected credit losses that result from the buy-and-immediate-rebalance strategy. This margin could be considered as a contribution to the allowance for compensation for default risk. However, as the technical assumptions underlying the MA do not suggest the expected losses should be calculated on a prudent basis, we assume here that the parameters used in the technical assumptions are intended to produce a best estimate of the expected credit loss. We note, for completeness, that there are various simplifications and limitations in the basic FS calibration method that may have some offsetting impacts.

[4] See numerical example in our response to Q14.

[5] PRA Discussion Paper 2/22, Technical Annex. Solvency II Review: Matching adjustment and reforms to the fundamental spread (bankofengland.co.uk)

We therefore conclude that 1A.4's technical assumptions underlying the MA and the basic FS calibration methodology are fundamentally inconsistent with the conceptual assumptions underlying the MA as set out in 1A.3, which states compensation for retained risks should be included in the FS. And, more importantly, the technical assumptions underlying the MA and the basic FS calibration method are not consistent with the proposed attestation wording that the FS includes 'compensation for all retained risks'.

It is not reasonable to expect firms to attest that their MA methods and calculations are consistent with the conceptual assumptions in 1A.3 when these concepts are inconsistent with the technical assumptions in 1A.4 and have not been adopted in the basic FS calibration methodology for vanilla corporate bonds.

Recommendation

Paragraph 1A.3 of SS7/18 should be deleted and / or 1A.6(iv) should be amended so that it no longer refers to 1A.3, thereby clarifying that firms are expected to attest that their MA methods and calculations are consistent with the FS definition that is used in the basic FS calibration (which is developed from the technical assumptions underlying the MA as set out in 1A.4 and which is not consistent with the conceptual assumptions underlying the MA as set out in 1A.3).

Question 14

14. Do you have any comments on the proposed standardised wording for the attestation?

The proposed standardised wording is an improvement on the wording used in the HMT November 2022 consultation response, which suggested all MA spread over the risk-free rate should be attributable to liquidity premia. Given the basic FS calibration methodology that was confirmed in the HMT November 2022 consultation response unambiguously results in material credit risk premia being included in the MA spread of vanilla corporate bonds (a point discussed in our response to Q18 and further below), this wording would have implied material FS additions are likely necessary for most (if not, all) vanilla corporate bonds in MA portfolios. The PRA has made clear in this consultation and in previous public statements that this is not an outcome that it expects or seeks.

However, the proposed attestation wording, and in particular the proposed text setting out the PRA's expectations in SS7/18, does not provide clarity on where credit risk premia of MA assets belong in the MA framework. The proposed wording in Paragraph 5.37 of SS7/18 could give the impression that the PRA expects all credit risk premia to be included in the Fundamental Spread, as the credit risk in MA assets is clearly a risk retained by the firm. But, as noted in our response to Q18, this is inconsistent and indeed contradictory to the basic FS calibration methodology – the MA discount rate produced by applying the basic FS to vanilla corporate bonds is clearly not a risk-free rate of return, and it includes compensation for retained credit risk.

The basic FS, when applied to vanilla corporate bonds, is not consistent with the proposed attestation wording that the FS should include 'compensation for all retained risk'. We believe it is unreasonable to expect firms to (implicitly or explicitly) attest to a quality in the regulatory policy (that the MA does not include the credit risk premium that is compensation for retained credit risk) that is unambiguously not present when the basic FS is applied to vanilla corporate bonds.

Does the basic FS calibration methodology permit credit risk premia in the MA of vanilla corporate bonds?

Above we described the presence of credit risk premia in the MA of vanilla corporate bonds that results from the basic FS calibration methodology as unambiguous. However, the point is so fundamental to the MA framework and its implications for the MA attestation that it may be useful to further elaborate on this point with a simple numerical illustration. This illustration may also highlight the potential materiality of credit risk premia in the composition of the MA spreads produced for vanilla corporate bonds by the basic FS calibration.

The basic FS calibration methodology produces an MA discount rate that is an estimate of the expected return of the MA asset when its credit quality is rebalanced on a buy-and-immediate-rebalance basis (less any effect of the basic FS's LTAS floor). Where the MA asset has credit risk (which is the case for most of the assets in MA portfolios), this measure of the expected return on the asset will include compensation for credit risk. This is one reason why the MA discount rates produced by applying the basic FS calibration method to vanilla corporate bonds tend to increase as the credit quality of an MA asset is reduced (riskier assets naturally offer higher risk premia).

We can use a straightforward example to illustrate the materiality of the credit risk premium component of the MA discount rate that results from applying the basic FS to vanilla corporate bonds.

At end-September 2023, bond market prices implied that an A-rated non-financial GBP 10-year zero-coupon bond may be priced to offer a gross redemption yield of c. 6.0%. Such an asset would attract a Fundamental Spread of 0.42% at end-September 2023[6], thereby generating an MA discount rate of 5.58%. The SII 10-year risk-free yield was 4.30% at end-September 2023, implying an MA spread of 128 basis points. The FS of 0.42% would have been 0.28% in the absence of the LTAS floor. So, the MA spread represents the expected return of the bond over the SII risk-free yield when it is managed with a buy-and-immediate-replacement credit rebalancing strategy, less the 0.14% incremental impact of the LTAS floor.

The expected return on the corporate bond would usually be considered to have two factors: a credit risk premium and a liquidity premium. The PRA's recently stated technical view[7] is that 35%-55% of a corporate bond's credit spread over gilts represents credit risk premium. The 10-year gilt yield at end-September 2023 was 4.39%[8], implying a bond spread in this example of 161 basis points. The PRA's technical view implies the asset's spread would therefore include a credit risk premium component of 56 to 88 basis points.

As described in the Technical Annex to PRA DP 2/22, the PRA's technical view was developed after a rigorous and extensive review of methods for estimating the credit risk premia of corporate bonds. It did not, however, include explicit consideration of perhaps the most straightforward approach to deriving the risk premium produced by a traded asset that is managed using a buy-and-immediate-rebalance strategy: estimating the asset's equity beta and then calculating the asset's risk premium as the product of its equity beta and the equity risk premium.

A through-the-cycle forward-looking estimate of the equity risk premium would typically be around 450 basis points[9]. A recent European Central Bank paper estimated the equity beta of 10-year corporate bonds at 0.167[10]. Together, these imply a credit risk premium for the A-rated corporate bond of 75 basis points. This supplements and supports the evidence set out for the credit risk premium range produced by the PRA technical position in the Technical Annex of PRA DP 2/22.

These measures of the credit risk premium produced by a buy-and-immediate-rebalance strategy for the illustrative corporate bond are well in excess of the 14 basis points margin over the expected credit losses of the strategy that is generated for the basic FS by the LTAS floor. For vanilla assets in normal market conditions, the impact of the LTAS floor on the basic FS will tend to be only a fraction of the size of the above estimates of credit risk premia.

In conclusion, a material component of the MA spreads produced by the basic FS calibration method for corporate bonds can clearly be attributed to credit risk premia.

[6] Technical information for Solvency II firms | Bank of England
[7] Paragraph 39, Technical Annex to PRA DP 2/22.
[8] Yield curves | Bank of England
[9] See, for example, *Triumph of the Optimists*, Dimson, Marsh and Staunton (2002). In particular, p.194 states 'The result is a forward-looking…arithmetic mean risk premium for the United States, United Kingdom and world equities that falls within a range of a little below 4 to a little above 5 percent'.
[10] Risk and return in international corporate bond markets (europa.eu)

Recommendation

Paragraphs 5.37, 5.38 and 5.39 of the proposed text in SS7/18 should be amended to clarify that the PRA considers it reasonable for the MA spreads of MA assets to include risk premia of a similar size to the credit risk premium that is incorporated into the MA spread of a vanilla corporate bond of comparable credit quality and duration by applying the basic FS, where it can be evidenced that the MA asset can be expected to generate such risk premia.

In the standardised wording for the attestation statement that is proposed in Paragraph 6.15 of CP19/23, 'the fundamental spread used by the firm in calculating the matching adjustment reflects compensation for all retained risks' should be replaced with 'the fundamental spread used by the firm in calculating the matching adjustment is consistent with the basic FS calibration method, and makes appropriate allowance for any risks and features of MA assets that are not adequately captured in the calibration of the basic FS'.

Question 16

16. Do you have any comments on the proposed level of confidence that firms should have in the MA, taking into account its material contribution to firms' capital resources and its role in reducing capital requirements in relation to credit risks?

In SII and forthcoming SUK, the MA directly impacts on the Best Estimate Liabilities (BEL), which is a component of technical provisions. The technical provisions produced by SII and SUK, including those for Matching Adjustment liabilities, are intended to produce estimates of market-based transfer costs for those liabilities. The arguments set out in the bullet points of Paragraph 6.20 SS7/18 to support the PRA's proposed requirement for 'the MA to be materially more certain than a 50th percentile' do not refer to this basic intended purpose for SII BEL and technical provisions – instead, the bullet points simply list some direct consequences of the MA regulatory policy.

The attestation should be focused on gaining supervisory assurance that the MA policy has been appropriately implemented, rather than asking firms to attest to basic properties of what the MA policy does or does not achieve. For example, the question of whether applying the basic FS to vanilla corporate bonds does or does not result in 'high confidence in the MA being earned' seems first and foremost a matter for MA policy design rather than the supervisory safeguard of attestation.

The concept of 'high confidence' in the MA framework would more naturally fit into an approach to independently validating the adequacy of the total assets (i.e. technical provisions and solvency capital requirement) backing MA liabilities to fund the MA liability cashflows as they fall due. Such a validation could be implemented by the new stress testing safeguard powers granted to the PRA in the SUK reforms and could be tailored to a firm's specific MA risk profile.

Finally, it does not seem logical that attesting to the reasonableness of the MA spread can be regarded as an independent and separate process to attesting to the appropriateness of the FS. A process of de-composing an asset's spread over the risk-free rate into components and allocating them to one of the FS or MA cannot determine an appropriate FS without also simultaneously implying an appropriate MA.

Recommendation

The attestation could be made more focused and effective by narrowing its scope to only consider Fundamental Spreads. This could be achieved by deleting 'and the matching adjustment can be earned with a high degree of confidence from the assets held in the relevant portfolio of assets' from the proposed standardised wording for the attestation statement as set out in Paragraph 6.15 of CP19/23.

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