BERMUDA MONETARY AUTHORITY

CONSULTATION PAPER

BSCR CHANGES

APRIL 2015

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I BACKGROUND

1. The Authority is proposing to restructure certain aspects of the Bermuda Solvency Capital Requirement (BSCR) standard formula with the aim of making it more risk sensitive. This consultation paper discusses a number of proposals, which the Authority is also including as part of the accompanying Economic Balance Sheet (EBS) trial run. Draft Prudential Rules reflecting these changes will be issued for Consultation during April 2015. The trial run submissions are due 29th May, 2015 and the Authority will analyse the BSCR results before finalising the Rules by the end of June 2015. These proposed changes will apply to all of the commercial classes (3A, 3B, 4, C, D and E) as well as to Groups. The changes will come into force at the same time as the EBS proposals, on 1st January 2016, to be applied to regulatory returns as at year end 2016.

2. The main rationale for the proposed changes is a desire to make the BSCR more risk sensitive, and also to increase incentives to pursue better risk management practices, rather than to rely on post submission supervisory action to deal with unsatisfactory situations.

3. The proposed changes cover currency risk, concentration risk, geographic diversification, and the credit charge for cash and cash equivalent assets that forms part of the Fixed Income module. All but the last item were part of a consultation exercise and limited-scope trial run conducted with P&C insurers in the second half of 2012. In addition, minor changes proposed for the Interest Rate and Liquidity Risk module are largely driven by the change to an EBS framework.

4. It is proposed that the new currency risk and concentration risk modules will be included in the overall BSCR calculations by way of the existing 'square root of the sum of squares' approach.

5. As the timing of the implementation of these changes will coincide with proposals for the EBS framework, the Authority plans to test them at the same time as the EBS trial run. The instructions for the EBS trial run include specific guidance on each of the modules contained in these proposals

6. The Authority has invited comments to specific questions, but it should be noted that feedback on all aspects would be welcomed. It is possible that further changes to the BSCR, to take effect at the same time as these changes, may be proposed later this year. Any such proposals would be subject to a trial run in Q2 2016.

7. Comments and trial run submissions should be returned to riskanalytics@bma.bm by **Friday, 29th May 2015**. Any questions relating to these proposals or the accompanying BSCR spreadsheet should be directed to riskanalytics@bma.bm in the first instance.

II CURRENCY RISK

8. An insurer that writes business in multiple currencies exposes itself to currency risk. The risk is that the insurer's liabilities may exceed its assets if currency exchange rates move adversely. The current BSCR formula does not include a charge for currency risk, and any situations where higher levels of currency risk are being accepted would be identified as part of the CISSA analysis and dealt with by way of suitable capital add-ons on a post submission basis.

9. The Authority is proposing to add a currency risk module that aims to encourage good risk management practices in this area. For this purpose, it is considered that ideally an insurer should hold sufficient assets in a currency to match its liabilities in that currency – both at an expected level as illustrated by the current balance sheet, and also allowing for risks undertaken in that currency on both the asset and liability side of the balance sheet.

10. The Authority notes that the approach adopted for this risk in some jurisdictions effectively incentivises insurers to hold all of the surplus assets shown on their balance sheet in the currency in which the financial statements are prepared. Where an insurer is actively taking on liabilities in multiple currencies, and there could be scope for those liabilities to deteriorate in extreme situations, then sound risk management practices would suggest that surplus assets should be held in currencies reflecting the currency underlying those risks. The BSCR requirement itself could be considered a convenient and simple proxy for assessing the level of additional risk being undertaken for this purpose.

11. The Authority is therefore proposing to adopt an approach that generates a currency risk capital requirement for a currency if assets in that currency are less than the sum of its liabilities plus a notional BSCR for that currency. The requirement would be zero otherwise. In order to reduce practical implementation issues, it is proposed to adopt a proxy for the notional BSCR in a currency based on the insurer's previous BSCR capital requirements expressed as a percentage of its total Line 39 liabilities. The assumption would be that this factor applies equally to all currencies. The BSCR in a particular currency would then be equal to its Line 39 liabilities for that currency multiplied by this factor. While it is recognised that this is not strictly accurate, it is felt it would be a reasonable first approximation, and that any anomalies noted during the usual annual review of the insurer's regulatory filings could be dealt with by way of a capital adjustment.

12. The Authority is proposing that the charge be 25% of the extent to which assets fall short of the target level of line 39 liabilities plus BSCR (proxy), with an additional 5% surcharge (making 30% in total) if assets fall short of (Line 39) liabilities. This 25% charge is consistent with the standard 25% foreign exchange stress applied as part of the Solvency II standard formula. The charge effectively assumes additional assets would need to be transferred into the currency in question from surplus assets held in another currency, and that at the time the transfer is needed the relevant foreign currency exchange rates had moved adversely by 25%.

13. While this approach does not follow the model currently proposed in Solvency II (and elsewhere), the Authority notes that it does provide strong encouragement for good foreign exchange risk management practices, while at the same time discouraging insurers to hold all of their assets in excess of balance sheet liabilities in their reporting currency.

14. The Authority proposes to assess a risk charge for currency exposures totaling at least 95% of assets and liabilities, to save having to produce detailed inputs for all minor currencies (on proportionality grounds). Note that this assessment includes the reporting currency. This is to allow for the unlikely possibility that an insurer does not hold assets matching its liabilities in the currency in which it prepares its financial statements.

15. When this approach was tested in 2012, some insurers noted that they address foreign exchange rate risk using derivatives and other hedging arrangements. It is not easy to develop a simple approach to dealing comprehensively with the range of hedging arrangements that may be used. In practice, insurers adversely affected by this charge, and who have risk mitigation strategies in place to protect against this risk, would be able to apply to the Authority for an adjustment to reflect the nature and extent of the risk mitigation strategy. However this facility will not be available as part of the 2015 trial run.

16. The Authority would be happy to work further with industry on development of a practical and simple way to incorporate a suitable allowance for risk mitigation strategies for this approach.

17. As an alternative, the Authority is also proposing to request, on a voluntary basis, a currency risk charge based on the Solvency II SCR standard formula approach. This is the result of the change in net asset value resulting from an adverse movement of 25% in each currency against the currency in which the EBS is prepared, and makes allowance for relevant aspects of the insurer's investment policy (eg hedging arrangements, gearing etc). The charge should be included in the answers to the supplementary questions and is for information purposes only.

Question 1*: Do you see any practical issues that the proposed approach may introduce?*

Question 2*: What practical issues are there in deriving the inputs needed?*

Question 3*: Are you likely to apply to the Authority for a BSCR adjustment to make allowance for a currency risk mitigation arrangement you have in place?*

Question 4*: Do you have any alternative suggestions for dealing with foreign exchange hedging arrangements?*

Question 5*: If you were to apply the Solvency II SCR standard formula approach to determining currency risk, what would the amount of your currency risk be?*

Question 6*: Do you have any comments on the advantages or disadvantages of adopting an approach based on the Solvency II standard formula approach compared to the proposed approach outlined above?*

III CONCENTRATION RISK

18. The Insurance Code of Conduct (section 5.1.7 and paragraph 33) includes elements addressing asset concentration risk. The Authority therefore considers that it would be appropriate to incentivise compliance with these requirements.

19. The Authority proposes to allow for this feature by requiring the insurer to identify its 10 largest independent exposures relating to all instruments (e.g. equity holdings, bonds, real estate, loans, etc.). The concentration risk charge would then be an addition of the existing BSCR market and/or credit risk charge contributed by those exposures.

20. For the purposes of considering which counterparties need to be grouped together to be considered for inclusion in this module, a single counterparty should include all related/connected counterparties, which are defined as:
    a. Control relationship: one of the counterparties, directly or indirectly, has control over the other(s);
    b. Economic interdependence: if one of the counterparties were to experience financial problems, in particular funding or repayment difficulties, the other(s), as a result, would also be likely to encounter funding or repayment difficulties.

21. The Authority believes that this is a simple way of including an allowance for concentration risk in the BSCR that should respond in a broadly appropriate manner. Insurers with widely-spread holdings will have relatively small individual holdings and thus attract correspondingly smaller charges. Conversely if large equity or real estate holdings or large exposures to poorly-rated counterparties are held, then there will be a correspondingly larger charge.

***Question 7**: Do you see any practical issues that the proposed approach may introduce?*

***Question 8:** Are you able to identify related counterparties and/or is the definition of related counterparties sufficient for the majority of your held assets?*

IV GEOGRAPHIC DIVERSIFICATION

22. It is generally recognised that an insurer writing business which is spread over several different geographical regions may produce less volatile results overall than a similar-sized account in one narrow area (subject to similar underwriting standards applying in each area). Additionally, a feature of the Bermuda market is that a lot of business is internationally sourced. The Authority therefore proposes to make an adjustment to P&C premium and reserving risk elements to reflect this potential reduction in risk. At this time, the scope of this adjustment will be limited to P&C business.

23. The Authority considers that the approach currently being considered in Europe for Solvency II SCR standard formula purposes has the benefit of being reasonably pragmatic, as well as producing a generally reasonable outcome.

24. However, because of the added effort needed to collect the additional data for this purpose, it is proposed to allow insurers to choose whether to use this feature, and indeed to which lines of business they choose to apply it. It could be for all business or just selected lines. Indeed it could just be used for premium risk or just reserve risk and for different lines of business for each. Where the feature is selected for a line of business, it would be necessary to split the total for that line of business between the statutory zones, albeit taking proportionality considerations into account.

25. The method requires premiums and best estimate technical provisions for outstanding claims for each selected line of business to be split into regions of the world. In our view, the 18 regions specified as part of the EU's proposals, based on UN groupings, represent a reasonably pragmatic global split for these purposes. Premiums and technical provisions for each line of business would be adjusted by first determining its Herfindahl index, H. The original amount for each line of business would be multiplied by a factor equal to 0.75 + 0.25*H. Thus a widely-spread line of business would attract a reduction in charge of up to 25%, while a highly concentrated line of business would attract a smaller reduction in charge.

***Question 9**: Do you see any practical issues that the proposed approach may introduce?*

***Question 10**: Are you likely to make use of geographic diversification for some or all of your lines of business, even if you did not do so for this trial run?*

***Question 11**: Would you consider that such an adjustment be considered for extension to some or all Long term business?*

V CHARGE FOR CASH AND CASH EQUIVALENTS

26. The current charge for cash and cash equivalents is a simple flat charge of 0.3% without differentiating the underlying credit security of the counterparties. It also does not differ depending on whether there are multiple smaller exposures or one large exposure.

27. The Authority is therefore proposing to explicitly recognise the ratings of individual exposures in a similar manner to that used for other fixed interest investments and reinsurance counterparties. Additionally, it is proposed to allow for diversification of holdings in a similar manner to the allowance currently adopted for reinsurer counterparty default risk. Thus there will be a diversification reduction of up to 40% of the base charge, driven by the ratio of the largest holding to the total of all holdings in this sub-module; if the largest holding represents 25% of the total, the reduction will be (100% - 25%) or 75% of 40%, i.e. a 30% reduction.

28. To refine the capital requirement for cash and short-term investments, the Authority intends to recognise the short-term investment ratings produced by Moody's,

Standard & Poor's, A.M. Best and Fitch. The following additional assignments to BSCR rating classes will be used:

BSCR Ratings	**Standard & Poor's**	**Moody's**	**AMBest**	**Fitch**
Class 2	A1, A1+	P1	AMB-1,1+	F1, F1+
Class 4	A2	P2	AMB-2	F2
Class 6	A3	P3	AMB-3	F3
Class 8	Unrated short-term investments and all other ratings			

29. Demand Deposits and Certificates of Deposit are to be assigned to BSCR rating classes based upon the credit rating of the instrument.

30. As with other fixed income investments, cash deposits and short-term debt issued by a country that is rated AA- or better in its own currency shall be classified under BSCR rating class 0. Similarly, cash deposits and short-term debt issued by government-owned and related entities that are explicitly and fully guaranteed by that government (and is rated AA_ or better), with the exception of mortgage-backed securities, shall also be assigned to BSCR rating class 0.

31. Capital requirements for cash and short-term investments will be determined by the following proposed factors:

BSCR Rating	Capital Requirement (applied to asset amount)
Class 0	0.00%
Class 1	0.10%
Class 2	0.20%
Class 3	0.30%
Class 4	0.50%
Class 5	1.50%
Class 6	4.00%
Class 7	6.00%
Class 8	9.00%

32. The Authority does not intend to change the overall current capital charge of 0.3% for cash and cash equivalents for the market as a whole. The proposed calibration above will be subject to review and further refinement following the results of the trial run.

Question 12*: Do you see any practical issues that the proposed approach may introduce?*

VI CONSEQUENTIAL STRUCTURAL CHANGES

33. In 2013, the Authority implemented refinements to the BSCR capital requirements for long-term insurers to recognise the credit default risks on fund withheld assets. Fixed income funds withheld investments may also present mismatch risk with the liabilities they support. These investments will now be included in the interest rate and liquidity risk capital assessment.

34. As a result of moving to an EBS framework, the distinction between fixed income investments held to maturity and fixed income investments held for trading or available for sales will be eliminated. Consequently, all fixed income investments will now be included in the interest rate and liquidity risk capital assessment for both P&C and long-term insurers.

***Question 13**: Do you see any practical issues that the proposed approach may introduce?*