

18 April 2022

By online submission only S&P Global Ratings 55 Water Street New York, New York 10041

Re: Request for comment: Insurer Risk-Based Capital Adequacy – Assumptions and Methodology

The Association of Bermuda Insurers and Reinsurers ("ABIR") represents the public policy interests of Bermuda's international insurers and reinsurers that protect consumers around the world. ABIR members employ over 87,000 people worldwide and generate income from nearly 150 countries. In 2018, Bermuda re-insurers made up about 36% of the global reinsurance market based on property/casualty net premiums earned, according to AM Best. ABIR members and other Bermuda (re)insurers paid US\$209.6 billion to United States (US) policyholders and cedants, US\$35.2 billion to UK policy holders and cedants and US\$29.3 billion to EU policyholders and cedants during the five-year period from 2016 to 2020.

Bermuda is recognised as both a Reciprocal Jurisdiction by the National Association of Insurance Commissioners ("NAIC") in the US and a full Solvency II equivalent jurisdiction in the EU. The Bermuda Monetary Authority ("BMA") has enacted robust compliance and regulatory legislation, designed to foster effective risk management processes and conservative capital management standards for Bermuda-domiciled insurance entities. All of Bermuda's insurance groups that are subject to group supervision by the BMA are internationally active. Therefore, Bermuda's group supervision framework reflects international developments in this area and principles for insurance group supervision adopted by the International Association of Insurance Supervisors ("IAIS"). The BMA seeks to act in the best interests of policyholders while facilitating the continued development of a viable, healthy, competitive and innovative insurance industry. Bermuda is the home of underwriting operations for more than 30 major international insurance and reinsurance firms. These large carriers are regulated under a separate and distinct set of requirements with a regulatory framework designed to meet international regulatory standards commensurate with their size and market scope. ABIR member companies have built a market with international dominance in natural disaster coverage and have supported US and EU consumers with over a quarter of a trillion dollars to rebuild after devastating losses.

This letter sets out our members' response to S&P Global Ratings ("S&P") request for comments on its proposed methodology and assumptions for analyzing the risk-based capital ("RBC") adequacy of insurers and reinsurers ("Proposed Criteria"). ABIR appreciates the opportunity to comment on the Proposed Criteria and will also refer to the S&P's 6 December 2021 published "Credit FAQ: Understanding S&P Global Ratings' Request For Comment On Proposed Changes To Its Insurer Risk-Based Capital Adequacy Methodology" ("FAQ").

- A. Changes to Total Adjusted Capital ("TAC")
- 1. Revising methodology for inclusion of debt funded capital and hybrid capital in TAC
- 1.1 Paragraph 39 of the Proposed Criteria provides that eligible debt-funded capital takes the form of senior debt or no-equity-content hybrid capital instruments issued by a non-operating holding company ("NOHC") where: (i) the senior creditors of the NOHC have a high structural subordination relative to the senior creditors of the operating entities; and (ii) the proceeds of the NOHC debt issue are down streamed as equity (or as hybrids that qualify as high or intermediate equity content) to regulated operating entities.

FAQ provides

"We include debt-funded capital in TAC given its equity-like characteristics, including the ability to absorb losses for the benefit of the group's senior creditors (typically policyholders). Where the requirements are met, the debt or debt-like instrument is transformed into an equity-like instrument. Although structural subordination is present between almost all regulated operating entities and their NOHCs, it is only where the NOHC is outside of the regulatory perimeter that we consider the structural subordination to be high enough to effect this transformation. For instance, we consider Bermuda-based NOHCs, which are within the scope of group solvency calculations and group supervision, to be within the regulatory perimeter, and we are proposing to align their treatment with that of European NOHCs."

We agree with the inclusion of debt-funded capital in TAC given its equity-like characteristics. However, we do not agree that it is only where the NOHC is outside of the regulatory perimeter that structural subordination is high enough to convert a debt or debt-like instrument into an equity-like instrument. It is unclear to us how S&P has reached this conclusion. From S&P Q & A responses, the conclusion appears to be derived from two basic assumptions:

- that Bermuda structural subordination is weaker than US structural subordination because the BMA has jurisdiction over a Bermuda insurance group NOHC where it is group supervisor; and
- that the fungibility of capital within a Bermuda-regulated group is such that capital could be removed from an operating subsidiary to the detriment of its policyholders, to cover losses elsewhere in the group.

Neither of these assumptions is correct. Below, we address several key considerations that

- explain why these assumptions are incorrect; and
- irrespective of whether these assumptions are the basis of S&P's conclusions, explain the strength of Bermuda structural subordination to demonstrate why it is not appropriate to differentiate between Bermuda NOHCs within the regulatory perimeter and non-Bermuda NOHCs outside the perimeter.

- 1.2 The first key consideration is that lenders to a NOHC will not have access to a regulated operating subsidiary's assets (when distributing assets in a Bermuda law insolvency) until that subsidiary's creditors have been paid in full and any remaining funds have been subsequently distributed up to the holders of its shares. This lack of access exists because shareholders of the regulated operating subsidiary rank behind all of the subsidiary's secured and unsecured creditors as a matter of insolvency law. Structural subordination is premised on the concept and presumption of separate legal personality which is a central tenet of Bermuda corporate law. Corporate entities are distinct from one another and the acts of one may not be attributed to another except in very limited circumstances. It is particularly significant that Bermuda law prioritizes unsecured policyholder claims over the claims of non-preferential unsecured creditors.¹ This demonstrates that Bermuda insolvency law ensures that an insolvent Bermuda insurer or reinsurer cannot distribute its assets to a NOHC until the Bermuda (re)insurer's own creditors have been paid. In addition, policyholder claims have a priority over general unsecured creditors. We assume, therefore, that S&P's concern cannot relate to insolvent Bermuda (re)insurers. If it does, we hope that the explanation above addresses this concern.
- 1.3 We note that S&P accepts that structural subordination is present between almost all regulated operating entities and their NOHCs. Structural subordination underpins S&P's group methodology where the NOHC is notched back of the insurance operating subsidiary. We agree with this observation. However, this makes it even more difficult to understand S&P's distinction between NOHCs that are within and outside the regulatory perimeter. We note that S&P has not provided an explanation as to why such a distinction is necessary. Therefore, it is unclear to us why it would matter whether the NOHC is inside or outside the regulatory perimeter. It seems to us counter-intuitive to suggest that structural subordination is high (and therefore providing greater loss absorbing capacity) when the NOHC is outside the regulatory perimeter so that the relevant regulatory authority does not include it within the scope of group supervision and group solvency calculations. The logic seems flawed. Below, we demonstrate that, if anything, excluding senior debt issued by an NOHC from regulatory capital reduces policyholder protection but, at very least, whether the NOHC is within or outside the regulatory perimeter is a neutral consideration.
- 1.4 As distribution of assets of an insolvent Bermuda (re)insurer is strictly controlled, the concern may be that an NOHC within the regulatory perimeter (and therefore subject to prudential oversight) would be permitted to extract value from a solvent operating subsidiary in one part of the group to fund deficits in operating subsidiaries elsewhere in the group. If so, the concern would be based on a fundamental misunderstanding of (i) the Bermuda capital maintenance regime, (ii) the role of the BMA as group supervisor; and (iii) the nature of Bermuda group supervision.
- 1.5 It is a cardinal principle of company law that the share capital of a company limited by shares belongs to the company and not its shareholders. This principle, known as maintenance of capital, exists

¹ In 2018, following extensive industry consultation, Bermuda introduced a policyholder protection regime providing for the priority of policyholders in a winding up of an insurer. The Insurance Act provides that in a winding up of an insurer, the claims of unsecured policyholder creditors of the insurer (including persons reinsured by the insurer in respect of claims under such contracts of reinsurance) are paid before the claims of all other non-preferential unsecured creditors.

primarily for the benefit of the company's creditors. Company and insolvency laws generally protect the creditors of a financially impaired or insolvent company by prohibiting or restricting the transfer of value to its shareholders until its creditors have been paid. The capital maintenance regime is reflected in various provisions of the Bermuda Companies Act 1981 ("Act") and the Bermuda Insurance Act 1981 ("Insurance Act"):

- The solvency requirements under the Act restrict a company from declaring or paying a dividend or a distribution out of contributed surplus if there are reasonable grounds for believing that the company is, or after the payment of the dividend or distribution would be, unable to pay its liabilities as they become due or that the realizable value of that company's assets would thereby be less than its liabilities.
- The Insurance Act provides that any insurer that fails to comply with its enhanced capital requirement ("ECR") is prohibited from declaring and paying any dividends until the failure has been rectified.
- In addition, no commercial insurer may declare or pay in any financial year dividends of more than 25% of its total statutory capital and surplus (as shown on its previous financial year's statutory balance sheet) unless it files with the BMA an affidavit stating that the declaration of those dividends has not caused the insurer to fail to meet its minimum solvency and liquidity margins.
- Also, no commercial insurer may reduce its total statutory capital, as set out in its previous year's financial statements, by 15% or more unless it has received the prior approval of the BMA. Total statutory capital includes the amount paid in with respect to the issue of its shares as well as all contributed surplus. This restricts the insurer's ability to repurchase or redeem its shares or to statutorily reduce its capital.

The existence of these statutory restrictions means that capital could not be removed from an operating subsidiary to the detriment of its policyholders, to cover losses elsewhere in an insurance group supervised by the BMA.

- 1.6 Section 2 of the Insurance Act provides that the BMA shall have the functions and powers conferred on it by the Insurance Act and the duty generally to supervise persons carrying on insurance business for the purpose of protecting the interests of policyholders. The BMA does not have any powers or any duty under the Insurance Act to supervise NOHCs or protect their creditors. The assertion that the BMA, as group supervisor, is conflicted in relation to its duty to the creditors of the NOHC and the policyholders of the insurance subsidiary is incorrect and misleading. The BMA does not have any direct power under the Insurance Act to regulate the NOHCs nor any duty to protect their creditors.
- 1.7 Bermuda law makes provision for the regulation of insurance groups in Part IVA of the Insurance Act and related regulations and rules promulgated thereunder. Bermuda's insurance framework is policyholder focused. Indeed, group supervision recognises that the solvency of an insurer may be affected by the financial resources of the group of which it is a part and therefore the BMA should be provided with the means of exercising group supervision and of taking appropriate measures at

the level of the Bermuda insurer where its solvency may be jeopardised to ensure that the interests of the insurer's policyholders are properly protected.

The BMA's functions as the group supervisor of an insurance group include, among other things (a) coordinating information gathering and the dissemination of relevant essential information as between the competent insurance regulatory authorities; (b) assessing the insurance group's compliance with rules on solvency, risk concentration and intra-group transactions, pursuant to the Insurance Act and the group supervision rules published by the BMA applicable to insurance groups (the "Group Rules");(c) assessing the insurance group's system of governance; and (d) planning and coordinating the supervisory activities of competent authorities in respect of the insurance group, including any relevant enforcement action.

If the BMA determines that it is appropriate for the BMA to act as the group supervisor of an insurance group, then it must designate a specified insurer operating in Bermuda in that group to be the 'designated insurer' in respect of the group. In effect, the designated insurer is the lead insurer for the members of the group. The designated insurer has the duty to facilitate and maintain compliance by the insurance group with the Insurance Act and the Group Rules and, thus, is integral to the BMA's framework for group supervision under the Insurance Act and the Group Rules. The designated insurer has several reporting obligations to the BMA including providing information on (i) the financial condition of the group, (ii) compliance by the group with the Insurance Act and solvency standards, and (iii) any material change that might impact that status.

Section 32 of the Insurance Act provides the BMA with significant powers of intervention and, in the case of companies that are group supervised, the BMA may issue directions to the designated insurer if it deems it desirable to safeguard the interests of policyholders and potential policyholders of the insurance group. The directions that may be issued by the BMA under section 32 include requiring the designated insurer to cease or limit its underwriting or imposing a restriction on the payment of dividends and distributions or directing the relevant company to maintain in, or transfer to and keep in the custody of, a specified bank, assets of such value and description as may be specified. The BMA's powers of intervention are to safeguard the interest of policyholders of the insurance group - they do not extend to piercing the corporate veil between the designated Insurer and other members of the insurance group to extract value from the Bermuda operating subsidiaries nor do they have extra-territorial jurisdiction permitting the BMA to directly exercise its powers in relation to entities that it does not regulate.

It is clear from the foregoing that:

• The BMA does not have a duty nor any power to supervise NOHCs or to protect their creditors and has no authority to pierce the corporate veil of a Bermuda (re)insurer to extract value, far less any authority to pierce the corporate veil of subsidiaries in other jurisdictions;

- If the BMA has concerns about the condition of the broader group, its right to intervene is at the level of the Bermuda(re)insurers, including measures affecting the conduct of their businesses, security of their assets and payment of dividends to mitigate the risk from the broader group.
- 1.8 S&P assert that the proposed treatment of Bermuda-based NOHCs, which are within the scope of group solvency calculations and group supervision, is to align its treatment with that of European NOHCs. Again, we question the logic. It is incorrect to equate Solvency II equivalence with Solvency II. Debt issued by a Bermuda-based NOHC which is down streamed as contributed surplus to its Bermuda regulated operating subsidiary (having been approved by the BMA as eligible capital) may be recognised as eligible capital for group capital purposes. In addition, Bermuda law exercises greater control over dividend payments than Solvency II mandates.
- 2. Characteristics of Senior Debt / Tier 3
- 2.1 Following Solvency II equivalence, Bermuda group supervised insurers sought regulatory capital recognition for their debt and preferred instruments. Generally, the BMA has ascribed Tier 3 eligible capital recognition to senior unsecured debt. Group Rules require an insurance group to establish and maintain a reliable and transparent group-wide financial reporting process for regulatory reporting and public disclosure. Bermuda groups publicly disclose, on an annual basis in their Financial Condition Report, (i) a description of the eligible capital of the insurance group categorised by tiers; (ii) a description of the eligible capital of the solvency and (iii) identification of ancillary capital instruments that have been approved by the BMA.
- 2.2 While Tier 3 structures vary, there are certain criteria that must be satisfied to qualify as group eligible capital. The BMA has established clear eligibility criteria that mandates permanence, perpetuity, free of encumbrances and subordination to group policyholders. The Tier 3 criteria require that the debt instrument is non-redeemable if group ECR is breached unless it is settled with the issuance of an instrument of equal or higher quality. In terms of subordination, some insurance groups contractually subordinate noteholders to group policyholders in the governing documentation. Other insurance groups demonstrate structural subordination by contributing the capital into regulated operating subsidiaries. In both scenarios, the debt instruments clearly demonstrate subordination to group policyholders and a commensurate loss absorbing capacity. These enhancements have been included to make the instruments junior ranking to policyholders clear from a regulatory perspective.
- 2.3 Strong structural subordination leads to instrument notching versus the issuer or counterparty credit rating. Bermuda NOHCs are typically rated two notches below the insurance financial strength ratings of the respective operating subsidiaries. This two-notch difference existed prior to Solvency II equivalence and persists today. The capital markets price the risk that comes with a lower credit rating. The NOHC's debt, preferred and common equity investors

are compensated for incurring the risk that the majority of the group's financial assets reside in regulated operating companies and therefore capital could not be removed from an operating subsidiary to the detriment of its policyholders, to cover losses elsewhere in the group; if regulatory capital was fully transferable from operating subsidiaries to the NOHC, then the NOHC's credit risk would be equal to these operating companies and bear the same rating.

The markets assign a material risk premium to the structural subordination of Bermuda NOHCs. The 2-3 notch differential between an NOHC rating and an insurance financial strength rating of a (re)insurer carries a credit spread premium of 49bps as evidenced by the 2022 year to date average differential between the US 'A' and 'BBB' index credit spreads as per Bloomberg as of 1 April 2022. This reflects the inherent degree of risk for an NOHC compared to the claims paying financial strength rating of the operating subsidiary.

2.4 S&P has notched recent vintages of BMA Tier 3 senior debt. This incremental notch from the holding company issuer credit rating ("ICR") was instituted to reflect an increased risk to bondholders of having their principal payment deferred. S&P, and peer rating agencies, went on to classify these securities as 'hybrids'. The incremental notch evidences S&P's belief that Tier 3 capital is more equity like in nature than typical senior unsecured notes. It logically holds that this structure should therefore be recognized as S&P rating capital. In the new issue primary markets execution, investors require a greater risk premium for Bermuda NOHCs Tier 3. Independent investment banks value the Tier 3 / traditional senior unsecured note delta at 12.5-25bps. Capital markets pricing signals further validates Tier 3's capital like nature.

The two-notch differential acknowledges the structural subordination between the holding company and its operating subsidiaries for prudentially regulated financial services group – structural subordination does not result in adjusting levels for holding companies of corporate or nonregulated nonbank financial institutions, as evidenced in see paragraphs 71 and 72 of S&P's Group Methodology, extracted below:

"For holding companies of corporate groups and nonregulated nonbank financial institutions, the ICR is typically the same as the GCP. For intermediate holding companies of corporate groups and nonregulated nonbank financial institutions, the ICR is typically the same as the rating on its core operating entities.

Holding companies are typically reliant on dividends and other distributions from operating companies to meet their obligations. The rating of holding companies of prudentially regulated financial services groups reflects the difference in their creditworthiness relative to the group's operating entities. The rating differential is mainly due to the increased credit risk that arises from possible regulatory constraints to upstream resources and potentially different treatment under a default scenario."

Most Bermuda insurance groups follow a capital management strategy that results in limited financial assets (aside from investments in its subsidiaries), held at the NOHC. A review of the

parent company's unconsolidated (solo) financials embedded within Form 10-K will reveal this reality. As such, capital has clearly been contributed into operating subsidiaries and thus is available as loss absorbing capital to protect policyholders.

- 2.5 We note that S&P's approach to Tier 3 securities has been disruptive to capital markets participants. In 4Q20, S&P downgraded certain Tier 3 securities months after issuance. Prior to this change, S&P's requirement that legacy securities first receive BMA eligible capital credit to be considered as TAC resulted in onerous documentation revisions. The Proposed Criteria introduces yet another revision absent any change in facts and circumstances.
- 2.6 Since the Proposed Criteria's publication, companies have received significant investor interest on its impact sell-side analysts have published a wide array of estimates on the industry and some insurers enhanced Risk Factor disclosure to make investors aware of S&P's proposal. While there remains an open question if hybrid capital/Tier 2 instruments will see their 'Rating Agency Event' redemptions triggered pursuant to the Proposed Criteria. Tier 3 instruments do not have optional redemption upon a loss of rating treatment. This can be explained by the lightly structured nature of Tier 3 senior unsecured debt whereby market participants have viewed the rating credit as durable.
- 2.7 S&P's Proposed Criteria would clearly increase Bermuda insurance groups' cost of capital. Of importance, the Bermuda (re)insurers already trade at a relatively wide credit spread compared to similarly rated non-life insurers. These trading levels reflect their relatively high beta earnings and liability profile, small-to-mid equity capitalization and infrequency in the debt markets. This is particularly relevant for policyholders and bondholders. Reinsurers, by their nature, need to recapitalize following an insured loss. Attracting debt, preferred or common equity capital requires financial strength and a strong credit rating. To attract equity capital, (re)insurers need to deliver a reasonable rate of return on their equity base. The successful recapitalizations during the COVID stress evidences Bermuda's current depth of capital markets access. However, this access is not guaranteed and may be disrupted. For an industry that has an inherent need to raise fresh investor capital, this risk is material to the operating model and policyholders.
- 2.8 Capital is intended to be permanent and stable and thus has a long duration. Thus, it is not feasible or appropriate to expect insurance groups to alter their capital structures without any form of transitional arrangements. Regulators generally provide appropriate transitional periods to allow for the evolution of capital structures in response to new criteria or capital requirements. Like in many regulatory capital frameworks, S&P could consider amortizing Tier 3's credit prior to maturity. This would avoid the cliff effect that comes with a scheduled maturity.

- 3. Shift from TAC to ACE and characteristics of Preference Shares
- 3.1 We request that S&P consider preference shares issued by a Bermuda company in relation to total leverage limits. Under the Proposed Criteria, S&P is considering more closely aligning total balance sheet leverage with accounting practices. Adjusted Common Equity ("ACE") is S&P's suggested approach to financial leverage. Such a change deviates from TAC as debt and preferred securities are not included. As preference shares are legal form equity we submit that it is logical to include them in ACE.
- 3.2 We note that preference shares are perpetual, rank junior to all but common shares, have fully discretionary dividends and are not deductible for tax purposes. Similar to Tier 3, there are BMA imposed conditions to redeem, ensuring capital adequacy prior to any redemption. Many firms have modest common dividend pay-out ratios. This is relevant as failing to declare the preferred dividend would have a more modest share price impact. In most markets, Bermuda preference shares would meet the definition of Tier 1 regulatory capital.
- B. Changes to Risk-Based Capital Requirements
- 1. Natural Catastrophe Risk
- 1.1 Paragraphs 129 through 136 of the Proposed Criteria provide that where S&P determine that natural catastrophe risk is material, it will include capital charges to capture potential unexpected losses from natural catastrophes. Under the Proposed Criteria S&P will deduct catastrophe-related premium from the loss estimate to determine the stressed natural catastrophe underwriting losses. The premium deducted is equivalent to the premium related to catastrophe business excluding the amount relating to expenses. Catastrophe-related premium is defined as:

$$(1 - industry \ average \ expense \ ratio) * \left(rac{Aggregate \ annual \ average \ loss}{industry \ average \ catastrophe \ loss \ ratio}
ight)$$

The aggregate annual average loss is specific to the insurer's exposure and typically based on the output from catastrophe models. S&P assumes the industry average expense ratio is 30% and the industry average catastrophe loss ratio is 50%.

The assumption that an industry average catastrophe loss ratio of 50% be applied to all insurers is too simplistic and does not consider the different risk profiles of each insurer. For example, it is expected that higher layers of a XOL reinsurance program would have a lower mean loss ratio, relative to primary insurance, to compensate for the increased tail risk. The proposed approach would result in a triple hit for writers of Excess & Surplus lines:

• the use of own modelled tail losses would be expected to result in a greater level of volatility (than an industry average capital charge);

- using a (higher) industry average level loss ratio results in a lower level of premium offset than would be the case if a (lower) insurer specific loss ratio was applied; and
- the lower catastrophe risk premium has a knock-on impact due to the expectation that the premium risk charges exclude the allocated catastrophe risk premium, i.e., the lower the catastrophe risk premium allocation, the higher the premium risk charge, due to the sum of figures being expected to reconcile to total premium.

Additionally using a static figure does not capture the differences in pricing adequacy between companies writing similar risks, nor does it allow for the impact of the underwriting cycle on the stressed catastrophe losses – achieving higher premium rates should reduce the stressed catastrophe losses all else being equal.

We query the appropriateness of the 30% industry average expense ratio assumption. We understand the desire to put in place a more objective method for determining the premium offset, but the assumption does not allow for the discrepancy in expense load across the market.

1.2 The Proposed Criteria would replace the flat one-in-250-year post-tax property catastrophe capital charge across all confidence intervals with a pretax natural catastrophe (i.e., across all non-life business lines) capital requirement that varies from one-in-200 to one-in-500 years at different stress scenarios. Interpolation is used to estimate substantial and severe confidence intervals (and extreme if the 1/500 AEP is not available), with scaling factors of 1.2x, 1.4x and 1.65x applied to the 1 in 200-year loss.

It is our view that it would be more transparent and robust to set return periods for the confidence intervals. It is also better for the business to manage to clearer explicit definitions rather than unnecessary interpolations. Specifically, explicit definitions allow for more efficient use of reinsurance and retrocession protection as a risk mitigation and capital management tool.

1.3 Quantification of catastrophe risk will expand to cover all lines of business rather than only property-related lines.

We request clarification as to whether this secondary catastrophe risk historically was captured elsewhere in risk exposure.

1.4 We challenge the appropriateness of replacing the post-tax requirement with a pre-tax requirement. A post-tax catastrophe capital charge results in an immediate positive impact on the balance sheet and aligns the interests of the insurers and the government as the counter party. Permitting net deferred tax assets is consistent with other international models and we would recommend net deferred tax assets arising from CAT events be allowed based on their loss absorbing capacity over a three-year period.

2. Credit Risk

2.1 Paragraphs 63 through 87 of the Proposed Criteria address Credit Risk. Credit risk charges will capture the potential unexpected losses resulting from credit defaults. Capital charges will be applied to all the major sources of credit risk at insurance companies, including bonds and loans, credit derivatives, mortgages, and counterparty credit exposure relating to reinsurance contracts, deposits, and OTC derivative contracts. The new credit criteria will consider the structure of bonds and loans in addition to the existing ratings and tenor factors. This is captured by assigning similarly rated bonds to one of four different credit risk recovery categories. The categories are used to determine the credit risk capital requirements for bonds and loans. This will negatively impact AA to BBB rated instruments.

The Proposed Criteria introduce assumptions for determining the rating input for bonds and loans to differentiate risk, including the use of assumptions for unrated exposures that vary by sector and economic risk group. S&P has completed a mapping of Moody's and Fitch ratings which is used to determine rating input. When applying the criteria relating to other credit rating agencies ("CRAs"), it will look to the long-term Moody's or Fitch issue rating and apply the following adjustments: (i) corporate and government ratings are lowered by one notch for investment-grade ratings and by two notches for speculative-grade ratings. When the issue is rated by both CRAs, it uses the lowest of all the notched ratings; (ii) structured finance ratings are lowered, in general, by three notches if it is rated by only one of the two CRAs. When the issue is rated by both CRAs, S&P may lower the lowest rating by two notches.

Fixed Income credit risk charges are most notably impacted by a punitive and predatory 1 to 3 rating notch downgrade when only rated by Moody's and/or Fitch. Structured securities generally receive the most punitive rating notch downgrade penalty in addition to higher capital charges under the proposed credit ranking categorization.

It is not transparent from the guidance if there is a risk-based rationale to support the increased capital charges for non-S&P ratings. Whether an S&P rating is available or not should not influence the likelihood of ultimate credit default, and therefore should not be considered an appropriate differentiator within the modelling of an insurer's credit risk. Where a qualified CRA rating exists, this should be able to be used without prejudice. There is a potential conflict of interest in the proposal that non-S&P ratings are not treated equitably, resulting in increased capital charges for insurers with such exposures. Additionally, it is implied that counterparties rated by another CRA other than S&P, Moody's or Fitch would be treated as if unrated, which appears unnecessarily penal. EIOPA publish a mapping of CRA ratings to their credit quality steps (0-6) to be applied within Solvency II regulations. It is proposed that unless S&P has a different view of this mapping between CRAs that this more complete mapping could be used to represent the risks of all counterparty credit exposures more accurately.

2.2 To determine the rating input for reinsurance counterparties for which S&P cannot determine the rating input (i.e., not rated by Moody's or Fitch), S&P will assume a 'B' rating input. S&P may adjust this assumption down to 'CCC' if it believes payments from a reinsurer are vulnerable to non-payment.

Rating mapping has not been provided for A.M. Best, Kroll, DRBS, Egan-Jones, or other CRAs implying a potential CCC rating assignment if reinsurance counterparty rated by any CRA other than Moody's or Fitch. Diversity is critical when using models for credit risk analysis of insurers. CRAs review different criteria - limiting the mapping to Moody's and Fitch is limiting the analysis to the criteria that those agencies deem necessary. Limiting the mapping is a risk and it is critical that this deficiency is addressed as a matter of urgency.

In addition, the capital charges for CCC+ or lower rated (including unrated) bonds are higher than would be expected, relative to the capital charges for equities. For example, it may be possible to create a scenario where the capital charge is greater for holding an investment in a company's unrated unsecured senior debt (Table 4: 72% capital charge @ 99.99%) than it would be for holding a group 1 listed equity investment in the same company (Table 14: 55% capital charge @ 99.99%). Given that debt ranks above equity, it is generally expected to carry less risk (i.e., debtors should be repaid before any equity distributions in the case of liquidation), so it seems inconsistent for it to be given a higher capital charge.

- 3. Non-life technical risk
- 3.1 Paragraphs 120 to 123 of the Proposed Criteria seek to impose capital charges to adjusted non-life loss reserves in order to capture unexpected losses from higher-than-expected claims in stress scenarios. It is proposed that factors of 1.2x, 1.4x and 1.65x will be applied to results at the BBB (moderate) level to determine the capital charge for each other confidence level ("Reserve Risk Capital Charges").
- 3.2 We note that the Non-Life Reserve Risk Charges have increased substantially, and the Proposed Criteria do not explain why this is the case. The charges look high, particularly given this is meant to reflect the risk emerging over a single year. We also note that the data and methodology used to calculate these factors is not clear which limits our ability to provide constructive feedback. We request that S&P provide more information on the rationale for the proposed Reserve Risk Capital Charges.
- 3.3 Paragraphs 124 to 128 of the Proposed Criteria, relating to mortgage insurance, provide that where S&P determines that mortgage insurance is material, in order to capture potential unexpected losses in stress scenarios, it applies (i) capital charges to net written premiums and/or unearned premium reserves; and (ii) the applicable Reserve Risk Capital Charge.

The premium risk capital requirement is the product of (i) the premium risk factor (table 20 in the Proposed Criteria) and (ii) the sum of net written premiums for recurring premium business and 25% of the net unearned premium reserve for single or upfront premium business. In the absence of net written premiums and the net unearned premium reserve, 100% of net earned premium may be used as a measure of exposure where S&P consider appropriate.

The reserve risk capital requirement is the product of net loss reserves and the capital charges in table 20 in the Proposed Criteria.

We are concerned that the Proposed Criteria represent a large increase in capital for nonmortgage specialist insurers that currently report exposures under the "Mortgage Guaranty".

Except for the consideration as to whether mortgage insurance is "material" as set out in paragraph 124, the Proposed Criteria do not provide for commensurate flexibility in respect of mortgage insurance. This will result in the provision of mortgage insurance subject to inappropriate capital charges. Additionally, there is no indication on what constitutes "material" for the purposes of paragraph 124.

We also note that there is a range of premium / loss accounting treatments for mortgage insurance. Accordingly, we are concerned that the Proposed Criteria will result in a risk that capital factors are not applied fairly and consistently.

We are concerned that there is no clear policy on the application of diversification in respect of mortgage risk and that the lack of diversification could result in material net impacts.

- 4. Diversification
- 4.1 Paragraphs 171 to 178 of the Proposed Criteria, relating to diversification, seek to account for diversity (i) within business lines (non-life premium risk and reserve risk); (ii) within risk categories (non-life technical risk, life technical risk and market risk); and (ii) between risk categories (market, credit, natural catastrophe, non-life technical, life technical and pandemic risks).

We note that the haircut that will apply on diversification benefit is to be reduced across all stress levels to: 10% (substantial), 20% (severe) and 30% (extreme) as opposed to a flat 50% haircut across BBB (moderate) to AAA (extreme) capital requirements.

We are fully supportive of the introduction of more sophisticated diversification credit which we see as a meaningful improvement in the model methodology. However, we think the diversification credit could be enhanced further, most notably by:

- 4.1.1 Level 0: accounting for the benefit of geographic diversification. It is inferred from the guidance that each of the region-line of business-type of business premium/reserve risk charges are summed into the 7 defined line of business groupings, i.e. implying a 100% correlation between these. This therefore excludes geographic diversification (as stated in paragraph 172) and diversification within each of the 7 line of business groupings. Even within any one region, "US direct medical malpractice - claims made" and "US non-proportional product liability occurrence" would be expected to offer a reasonable degree of diversification as these are quite distinct lines of business, as would "Asia-Pacific proportional professional indemnity" albeit to an even greater extent due to different geographic environment. It is worth noting that geographic diversification is implicitly allowed for with in the natural catastrophe calculation, so it is potentially inconsistent between exposure types to not allow for this in the non-natural catastrophe calculation. Utilising a more granular diversification framework would act to incentivise greater business diversification across these factors and hence reduce significant risk concentrations in any one sub-segment. Geographic diversification is one of the ways (re)insurance companies achieve balanced risk portfolios. Bermuda (re)insurers are highly diversified in this respect. Indeed, Bermuda (re)insurers covered at least 20% of each large catastrophe/major loss going back to at least 2009². Geographic diversification is an important risk mitigant, given diversity in underlying risks, markets, industries, claim propensity, economies, and regulatory and judicial systems. As geographic diversification is not accounted for in the Proposed Criteria this will result in inaccurately equating risk between companies that write geographically diverse exposures and those that do not. We request that S&P revise the Proposed Criteria to take into account geographic diversification rather than the limiting one size fits all approach; and
- 4.1.2 breaking the line of business risk groupings (currently non-life premium risk and reserve risk) into more groups and allowing for diversification within them.
 - 4.1.2.1 Level 1: The 75% correlation assumption between premium risk and reserve risk for each line of business is much greater than historic experience would suggest reasonable. In consideration of why a lower correlation parameter would be justified, short-tailed and long-tailed lines of business have different dynamics however evidence would support a lower overall correlation parameter for both:
 - For short-tailed lines of business, there is relatively little correlation of financial performance between sequential accident years as losses are primarily driven by one-off events, however reserves are

² https://business.abir.bm/resources/Details/2021-abir-fact-sheet-8253

generally weighted to more recent accident years (i.e. are on average more strongly related to future accident periods).

- For long-tail lines of business, there is a stronger argument for a moderate level of correlation of financial performance between sequential accident years due to systemic risk drivers (e.g. claims inflation, recessions etc), however there is greater temporal diversification within reserves as these might relate to losses from a larger number of accident years, with the development of more mature accident years having a weaker relationship with future accident years.
- When combining the above two factors, in both cases, it is difficult to rationalise such a strong correlation (75%) between reserve risk across all prior accident years and premium risk relating to the future accident year(s). For example, the Solvency II Standard Formula uses a 50% correlation assumption for this.
- 4.1.2.2 Level 2: Many of the level 2 correlations are higher than would be expected based on readily available data sources.
 - Particular correlation pairings, within the non-life technical risks, which appear higher than expected are the 50% correlation between "Liability" and "Property" which are generally considered to have quite distinct risk drivers and hence a low level of risk interdependency. For example, the Solvency II Standard Formula uses a 25% correlation between 'General Liability' and 'Fire and Other Damage to Property' segments.
 - Meanwhile, the effective 100% correlation between "Other" and the 6 original groupings (Liability, Property, Motor, Financial, Health & MAT) is inherently counterintuitive. These residual classes have been characterised as not being similar to the 6 original groupings, which illustrates that these lines of business have distinct risk drivers and hence should be seen to have a diversifying effect and therefore a lower level of correlation to other lines of business.
 - 4.1.2.3 Within Credit Risk, there is no correlation matrix for diversification between the various exposure types. Insurance driven credit-defaults e.g., reinsurance recoverables are considered to have very distinct risk drivers from more general financial exposures e.g. bonds and loans. Reinsurance counterparty default is expected to be driven by insurance driven losses (e.g., reserve deteriorations, natural catastrophes) rather than the economic cycle. It would therefore be appropriate to make greater allowance for diversification between sources of credit risk, as is done for

contingent reinsurance counterparty risks, between remaining distinct exposures (bonds and loans, OTC derivatives, CDSs, mortgages, reinsurance loss reserves and receivables, deposits with credit institutions, deposits with cedants, and other chargeable assets).

The overall level of diversification falls materially below other capital models (before allowing for any haircut). We therefore believe the model is already capturing sufficient tail correlation, and query whether a diversification haircut is necessary at all.

We have observed that the practical effect of the stepped nature of the diversification haircut (and changes in underlying risk factors) results in a material widening of bands between the severe/AA and extreme/AAA level. The Proposed Criteria do not note that the intention is to increase the extreme/AAA capital level.

As a result of (i) the fact that that geographic diversification is not considered in the model; and (ii) the new stepped nature of the diversification haircut, the Proposed Criteria will penalise companies that are required to hold AAA (extreme) capital compared to other stress levels and this will have a disproportionately high impact on Bermuda reinsurers.

- 4.2 We further note the Proposed Criteria does not contain disclosure relating to the application of the diversification credit for financial lines and pandemic risk. Multiple independent attempts to reconcile this calculation have led to greater diversification credit than is set out in the published S&P FAQs. Accordingly, we are concerned that the approach in the Proposed Criteria is excessively punitive.
- 4.3 From a technical perspective, we note in that there are minor inconsistencies such as the correlation between financial lines³ and variable annuities⁴ (both being 100% correlated with market and credit risk) while market risk and credit risk⁵ are only correlated 75% against each other.
- 4.4 The Bermuda market comprises of reinsurance groups that actively manage joint ventures and managed funds which provide such companies with additional presence in the market, enhance their client relationships and generate fee income. These joint ventures and managed funds allow these groups to leverage their access to business and their underwriting capabilities on a larger capital base.

³ Table 33 of the Proposed Criteria

⁴ Table 34 of the Proposed Criteria

⁵ Table 36 of the Proposed Criteria

The proposed methodology does not capture the benefits of this hybrid reinsurance business model (owned + managed third-party capital) – namely with respect to the significant fee income generation associated with this business. For the significant number of such companies or reinsurance groups, diversification is partly with regards to their hybrid business model (owned capital v. managed third-party capital), for which the Proposed Criteria does not provide significant credit in a capital model context. For example, within catastrophe risk, the standard approach to the Premium Offset is fixed, and therefore does not allow the recognition of fee income which, as demonstrated by such a group's GAAP results, significantly reduces the group's expense ratio.

- 5. 'M Factor' removal
- 5.1 In paragraph 6 of the Proposed Criteria, the following change is outlined: "Removing the adjustment to the capital model output resulting from our review of insurers' economic capital models (the "M factor") because of proposed changes to these criteria, such as the update to our approach to assessing interest rate risk to better capture an insurer's risk exposures;"

The rationale for the removal of the "M factor" adjustment is unclear, given we do not perceive there to be a significant change in circumstances to reflect that such an adjustment is no longer justified. Although some methodologies of the S&P capital model have been updated, this does not invalidate the rationale for its previous inclusion. A good economic capital model will use more sophisticated stochastic methods and can be expected to produce more credible results. An advanced Enterprise Risk Management ("ERM") framework acts to mitigate the inherent risk that an insurer is exposed to, e.g. due to greater understanding of their risk profile, and therefore reduces the residual financial risk which the insurer is subject to, all else being equal. Removing this adjustment acts to disincentivise investment in advancement of ERM processes, which weakens insurers' abilities to remain solvent in the long run.

5.2 Further, advanced ERM processes in the management of natural catastrophe risk may in fact result in higher capital requirements, due to the use of insurer's own modelled Net AEPs rather than standardised charges, as used for other risk categories. Such an insurer may model a much larger number of region-perils, and better represent secondary perils and emerging trends (such as climate change) than those who place greater reliance on the output of vendor models, which are infrequently recalibrated and offer an incomplete scope of primary and secondary region-perils. It is noted that paragraph 131 states that "Where we determine that the output from catastrophe models, including any loadings, does not adequately capture the risk (for example, relating to demand surge, secondary uncertainty, or climate change), we apply adjustments to determine the relevant loss estimate". However, the extent of these adjustments is unclear, and due to the difficulty of quantifying such a loading, are unlikely to result in the same level of precision as when these factors are inherently considered at a more granular level within an insurer's natural catastrophe modelling framework. It is undesirable,

for creditors, to facilitate lower capital requirements for insurers with less developed natural catastrophe modelling frameworks as this can lead to systematic under-pricing of risk, which can lead to ultimate insolvency (as demonstrated by recent ILS market players). Therefore, it is in creditors' best interest to incentivise advancement of ERM processes, as a differentiator between insurers, through allowance for this within the S&P economic capital framework.

6. Non-Proportional Outwards Reinsurance

6.1 The Proposed Criteria does not explicitly consider the non-proportional nature of certain outwards reinsurance contracts pertaining to non-natural catastrophe, which act to mitigate tail risk. For example, an insurer may have adverse development covers on their reserves or occurrence/aggregate XOL covers on underwriting exposures, which could provide significant capital relief if modelled appropriately. This results in an inconsistency between the treatment of natural catastrophe and non-natural catastrophe, as when using the insurer's modelled Net AEPs for natural catastrophe this will factor in the benefit of non-proportional outwards reinsurance, whereas a strictly proportional assumption is taken elsewhere. This acts to disincentivise management of non-natural catastrophe accumulations as this does not give appropriate credit where such actions have been taken.

(Re)insurers regularly purchase non-proportional outwards reinsurance to manage net underwriting risk volatility. In addition, such companies also have in place a small number of adverse development covers, which are considered to limit net losses in extreme tail scenarios. It is proposed that specific allowances be made for the capital benefit that these protections would be expected to provide, as is made in our other regulatory and rating agency models.

ABIR members appreciate the opportunity to comment on the Proposed Criteria and are mindful that it has been some time since S&P last reviewed the assumptions and methodology and therefore certain changes may be appropriate. Our members do however have significant concerns and would welcome the opportunity to discuss their feedback and recommendations.

Sincerely,

John M. Huff President & CEO

Suzanne Williams-Charles Director of Policy and Regulation