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## Circular 44 of 2019: Review of the solvency framework: Update

The Council for Medical Schemes (CMS) published [Circular 68 of 2015](#) on 25 November 2015, outlining a proposal for a risk-based solvency framework that could be applied to South African medical schemes. Stakeholders were invited to comment on the [technical discussion document](#). Nineteen [submissions](#) were received, which included:

- 10 medical schemes;
- 2 administrators;
- 1 hospital group; and
- 6 consulting & actuarial firms.

All respondents supported the concept of moving towards a risk-based approach to solvency but differed on some of the technical detail. This Circular summarises the dominant issues raised in the submissions. The comments received will inform an updated technical framework and implementation plan, within the context of the broader regulatory landscape.

### 1. The current regulatory landscape

There have been long-standing discussions about a risk-based solvency regime for medical schemes. Extensive technical work has also been done in this regard. However, any change to the solvency framework for medical schemes will need to be cognisant of the changing policy environment to ensure regulatory coherence. Issues to be considered include *inter-alia* the draft Medical Schemes Amendment Bill; the outcomes of the Health Market Inquiry; and the implementation of National Health Insurance.

Risk-based solvency regimes have been widely adopted by health insurers internationally. In Australia, for example, a capital adequacy requirement is determined based on a two-tier approach looking at asset, liability, insurance, capital and operational risk; in the United States of America, a risk-based capital approach was adopted from the Risk-Based Capital for Life and Health Insurers Model Act.

The current solvency requirement is also out of line with other South African prudential requirements: both the long-term and short-term insurance environments have risk-based solvency frameworks in place. This may create an incentive for providers of healthcare financing products to structure their products in such a way that they meet the definition of the product with a lower solvency requirement. There is also an undermining of social solidarity principles that may occur. Careful consideration is required to maintain a level regulatory playing field.

One of the considerations, for levelling the playing field, is to have a regime similar to that of the Solvency Assessment and Management (SAM) Framework, which specifies capital requirements for long- and short-term insurers. SAM is based on Solvency II, the risk-based solvency regime for all insurers and reinsurers in the European Union, so it is recognised as an international standard. The Solvency II/ SAM approach has been adapted for medical schemes by [Scott and Lowe](#), with a model which allows for the following risk components:

- Liability risk, consisting of:
  - a provision for operating deficit;
  - a provision for the variability risk associated with claims and expenses;
  - an allowance for catastrophe risk; and
  - an allowance for outstanding claims reserve risk.
- Asset risk, allowing for:
  - Asset return risk; and
  - Credit concentration risk.
- Operational risk:
  - Determined as 3% of the prior year gross annual contributions, plus
  - 3% of any extraordinary growth in the prior year's gross annual contributions.

## 2. Key issues raised

This section summarises stakeholder responses to the discussion document. It is not meant to be a complete list of all the points raised by all respondents. We instead focus on common themes that are likely to have a material impact on the technical requirements for most stakeholders.

Broadly, respondents identified three aspects that require significant reconsideration:

1. Alignment to existing risk-based capital models, such as SAM, and the use of a standard formula;
2. Operational risk measurement: there is a view that the proposed complaints index and compliance index are insufficient and impractical proxies; and
3. Business risk measurement: the proposed claims modelling is seen as unduly complex and not scheme-specific enough.

These broad areas are made up the following themes:

Confidence level: The proposed method is based on a value-at-risk method with a probability of ruin of 1% (or a confidence level of 99%) over a three-year period. SAM, Solvency II and international health industries such as Australia and the UK, are all based on a confidence level of 99.5% over a one-year period. There is an argument that aligning with this approach would improve the consistency and credibility of the solvency requirement across sectors and countries. Furthermore, it is argued in some submissions that the framework should be internally consistent by applying the same confidence level to each risk

component. Currently, asset risk is assessed using a worst-case scenario over a one-year period, whereas business risk is assessed using a probability of ruin of 1% over a three-year period.

**Risk components:** Respondents objected to asset risk being counted in both the asset and business risk components. There were suggestions from some respondents on more risks that could be included, such as counterparty-default/ credit concentration risk, catastrophe risk, lapse risk, liquidity risk and outstanding claims reserve risk. Some respondents suggested that a scheme's capital should be reduced to allow for risks transferred, such as through a managed-care arrangement or using derivatives to hedge equity risk. In principle, the CMS agrees that risk components should be clearly defined to capture the scheme's most significant residual risks, without double-counting capital requirements.

**Aggregation:** The method originally proposed by the CMS sums the capital for each risk component, which ignores potential diversification and may overstate capital requirements. Respondents suggested that the risk components are instead aggregated with a covariance matrix or adjustment technique.

**Calibration:** Respondents requested evidence and rationale for some of the calibration bases and proposed minimum and maximum limits for operational risk. Note that the parameters provided in the discussion document were illustrative examples. The final parameterisation will be supported by evidence and explanation, though it may require an industry-wide dry-run and/or economic impact study. (The [SAM Economic Impact Study](#) provides a framework that may be adjusted for the medical scheme sector.)

**Risk governance:** Some respondents sought to locate risk-based capital requirements within a broader risk governance framework, referencing the SAM Own Risk and Solvency Assessment or an Integrated Operational Risk Management Framework. This is considered in section 3.

**Implementation burden:** Respondents noted that this solvency regime is more complex and may increase a scheme's administrative burden and costs i.e. increase the non-healthcare expenditure. This could be mitigated by a more prescriptive framework and/or a standard formula approach but should also be offset in aggregate by greater capital efficiency. In addition, much of the technical work underpinning a risk-based approach should be undertaken regardless of the solvency requirement in order for a scheme to fully understand and appropriately manage the risks to which they are exposed.

**Anti-competitive concerns:** Larger schemes were expected to have relatively lower capital requirements per member, and some respondents were concerned that these schemes may significantly reduce member contributions and thereby make it difficult for smaller schemes to compete. It should be noted that the risk-based capital formula discourages drastic changes in a scheme's operating result. Overall, respondents were comfortable that a phased implementation/ transition period would provide sufficient protection from this potential adverse impact (at least in the short term).

**Allowance for third-party risk transfer e.g. managed-care organisations:** About a third of respondents suggested that there should be a requirement for managed care organisations to hold capital or some form of reinsurance when there is risk transfer to the organisation from a medical scheme. There should then be a reduction in the capital held by the scheme that passes across the risk, with the scheme retaining some counterparty-default risk. However, there were counterarguments, such that it would introduce additional regulatory complexity to monitor such a system and that schemes should retain the accountability to closely manage their service providers.

Operational risk calculation: The proposed model uses a level-of-complaints and compliance index. Respondents agree that this is a poor proxy for operational risk and is impractical to manage:

- It seems insufficient to capture other major contributors to operational risk e.g. administrative systems, claims coding and verification, member servicing, fraud and forensics, human resources and risk mitigation techniques such as business continuity plans.
- It seems subjective and may be slow to react to changes in a scheme's operating environment. Arguments were made for a more transparent and consistent process, so that one could objectively verify the capital requirements in respect of this component and compare it to other schemes.
- Certain aspects within a medical scheme may give rise to a higher level of complaints not commensurate with an increased level of risk. An example would be a medical scheme that applies stringent managed care interventions to better manage the scheme's risks resulting in a higher level of complaints.
- It is not clear how the complaints information will be used. For example, it is not clear whether only complaints that have been concluded and verified would be considered.
- The level and type of complaints are expected to differ between medical schemes, due to differences in benefit design, administrators and socio-economic status of the members. As a result, the level and type of complaints may not be a true reflection of the underlying risks of the scheme.
- The compliance index seems impractical to manage within the regulator's current resources. The order in which schemes will be inspected by CMS may also put certain schemes at a disadvantage.

Business risk calculation: Respondents raised various concerns about the claims modelling:

- The use of the normal distribution to model the claims ratio and the Poisson distribution to model large claims may not be the most appropriate. There is an argument that claims modelling should be tailored to each medical scheme's profile and experience, with aggregation only used in the components where it is necessary and reasonable to do so.
- The risk capital may be distorted by non-healthcare expenditure (NHE) and there could be a disincentive to lower NHE. This could be addressed by removing NHE from the denominator of the claims ratio calculated for this risk component.
- Further analysis and explanation was requested around the allowance for underlying risks from high-cost claimants, liquidity constraints, claims seasonality, claims variability for risk claims and allowance for medical savings accounts, including the credit risk thereof.
- Although using the average claims ratio during the previous three years as input into the model will provide more stable results, this average claim ratio may not be representative of the future.
- It assumes that the increase in claims from year two onwards will be in line with the increase in contributions for the industry on average. This may not necessarily be the case.

Asset risk calculation: Respondents suggested these enhancements, not all of which are practical:

- The proposed model only recognises the three main asset classes, namely cash, bonds and equities. It is proposed that other asset classes, such as property and inflation-linked bonds, also be allowed for. The asset risk components could also be expanded to allow for currency, concentration, credit and counter-party default risk. There is however, a need for the CMS to balance the relevance and complexity of the risk-based capital calculation.

- The dividend yields and income from bonds in the future cash flow projections were based on the average returns during the previous three years. These might not be appropriate for future modelling due to different economic outlooks that may apply.
- Some respondents requested guidance on an ideal/ target asset allocation.
- It was suggested that assets not used to back solvency requirements could be invested less conservatively and attract lower risk capital.

Clarification requested: Respondents raised pragmatic questions about the process, such as:

- Will CMS permit scheme-specific adjustments to the proposed framework and what the process will be for obtaining exemptions?
- Will schemes be required to develop internal models?
- How would the resourcing requirements for the CMS be impacted?
- How frequently will solvency be monitored?
- What is the implementation plan?
- What are the transitional arrangements?

### 3. Next steps

Despite the issues raised, all respondents support the move to a risk-based solvency capital approach. It is generally agreed that the framework should be aligned to SAM, adjusted as necessary for the medical scheme environment.

The regulatory capital requirements form part of Pillar 1 of the SAM Framework. The two other pillars of the SAM Framework relate to governance and reporting requirements. The CMS currently imposes certain governance requirements on medical schemes, along with conducting inspections, which serves, in part, to address this. These requirements will be reviewed and refined together with the quantitative aspects of the risk-based solvency regime.

In an effort to calibrate the model, develop transitional arrangements and minimise unintended adverse impacts, schemes may be required to:

- calculate and report on risk-based capital requirements on selected bases;
- participate in an economic impact study; and
- submit a business plan considering the impact on at least strategy, benefit design, pricing and risk management.

Schemes will be given adequate notice before any such requirements are put in place. The CMS will publish an updated framework by September 2019, taking into consideration the feedback from industry. This will include technical details of the calculations required, and the implementation strategy, thus enabling further and deeper engagement.

The CMS would like to thank stakeholders for their input thus far. We look forward to engaging more on this process.



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