



Reference: RBC\_01  
Contact person: Charlton Murove  
Tel: 012 431 0435  
Fax: 086 532 2744  
E-mail: solvency@medicalschemes.com  
Date: 25 November 2015

## **Circular 68 of 2015: The review of the Solvency Framework**

The Medical Schemes Act no. 131 of 1998 Chapter 7, requires that a medical scheme “shall at all times maintain its business in a financially sound condition...”. The Act defines financial soundness to mean that a medical scheme has sufficient assets for generally conducting its business, providing for its liabilities at all times and for meeting prescribed solvency requirements. The Act further provides that the Minister may make regulations after consultation with Council in relation to “the nett assets to be held by a medical scheme”.

The Council for Medical Schemes (CMS) in its functions, always seeks to protect the interests of beneficiaries at all times. The current solvency framework has been cited as a cause for some of the challenges facing medical schemes. In their submissions to the Competition Commission’s Market Inquiry into the Private Healthcare Sector, medical schemes blamed the current solvency regulatory requirement as a factor contributing to the increase in healthcare costs. It was also cited in submissions made on the proposed Low Cost Benefit Option framework as an obstacle in expanding the membership base.

The objective of a good solvency framework is primarily to maintain financial stability, promote fair competition among market participants, ensure efficient use of capital and more importantly to provide early warning signs of potential failure. The early warning will allow the regulator and the medical scheme sufficient time to institute remedial action.

Financial stability should be maintained by ensuring that medical schemes have sufficient capital to meet foreseeable circumstances. Individual circumstances of schemes are different and the risks they carry are also different, therefore ensuring financial stability of a scheme through a solvency framework would need to pay close attention to such scheme’s specific circumstances.

In addition, fair competition among participants would imply not allowing certain schemes to gain an unfair advantage over other schemes through the solvency requirements. This also speaks to the need for removing the barriers of entry to allow new

schemes and or beneficiaries to join the market. The CMS would like to introduce a solvency framework that will promote growth in the industry and at the same time ensure healthy competition amongst the schemes.

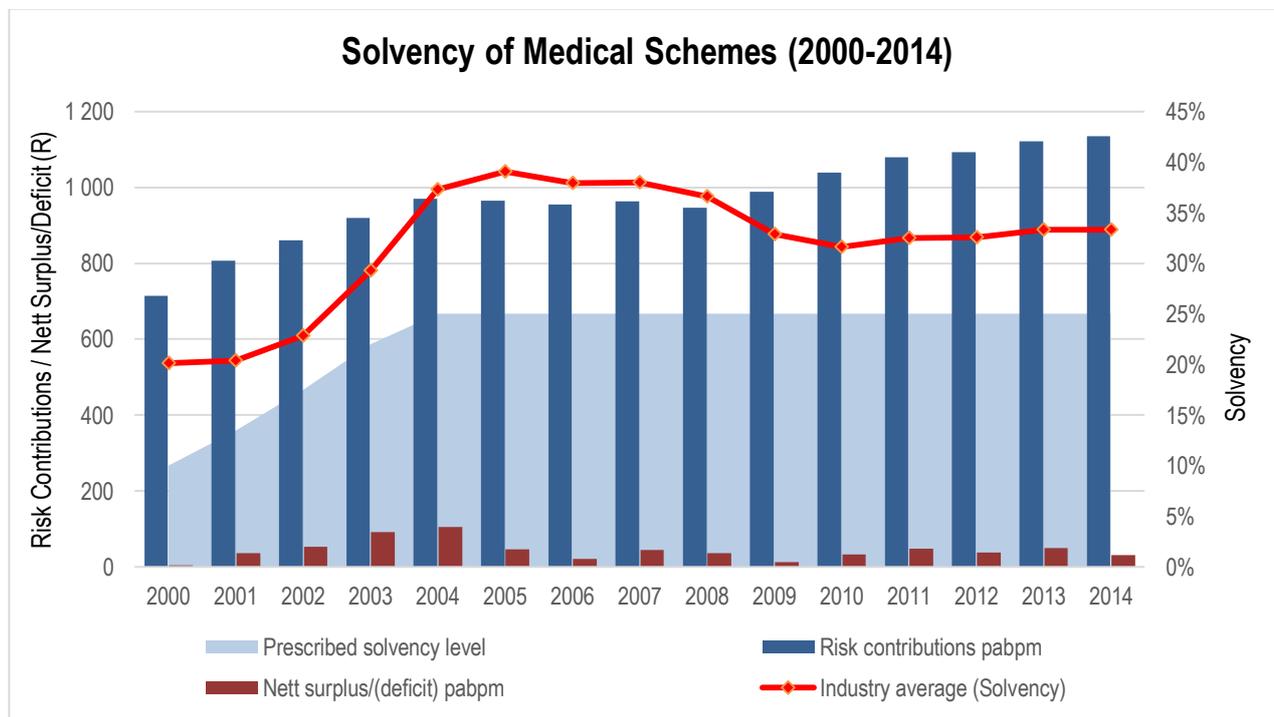
Efficiency in the use of member funds is vital, if as an industry, we are to provide beneficiaries with the greatest benefit. This would entail schemes keeping member funds in reserves only at an optimal level. Schemes should accordingly not be required to keep more reserves than necessary. Excess member funds should be placed elsewhere for better use, but neither should they under reserve as this puts the security of member benefits at risk.

Efficiency would entail better risk management by the schemes thereby promoting operational efficiencies. It would entail investment of reserves in a manner that will limit member contribution increases so as to maintain the necessary capital requirements. Efficiency would also speak to simplicity in the solvency framework – an overly complex framework would be costly to implement and monitor. A good solvency framework would optimise efficiency though considering the mentioned factors as well as other factors.

A good solvency framework would provide the CMS and the scheme itself with ample early warning signs should it face financial difficulties. This speaks to a framework that is prospective rather than retrospective and would provide both the scheme and the CMS time to take remedial action.

## Medical Schemes environment in South Africa

### Solvency ratio from 2000 to 2014



The graph above shows the solvency level of medical schemes from 2000 up to 2014. It also shows the inflation adjusted average risk contribution and net result per average beneficiary per month.

From the year 2000 to 2004, schemes were building reserves to reach the prescribed minimum solvency requirement of 25%. This was achieved through beneficiaries contributing at rates much higher than the cost of healthcare and non-healthcare costs. From 2000 to 2004, the rate of increase in contributions was fairly aggressive. The net surplus was also at its highest during this period.

After schemes reached the targeted solvency reserve levels, increases in contributions became less aggressive from 2005 onwards.

The fall in solvency in the years 2007 to 2009 is largely due to the introduction of the Government Employees Medical Scheme. This brought in a significant number of beneficiaries without reserves being tied to these new beneficiaries. Reserves therefore had to be accumulated for these beneficiaries.

Maintaining the required solvency levels depends on a number of factors, which include schemes obtaining a nett surplus and contributions being maintained at a sustainable level. In 2009, the nett surplus was very low and as a result the solvency fell in 2010 and the contribution increase in 2010 was fairly high.

The above highlights some of the challenges of the current 25% solvency regime, which is mostly financed through member contributions, and which will be discussed in detail in the following sections.

## Alternative Solvency frameworks

There are a number of solvency frameworks that are available. Below is a brief description of these frameworks and some of their strengths and weaknesses. These were adopted from a report from the Centre for Actuarial Research by Meheshvera Cooper in 2001.

### i) Market Solutions

This is where no solvency regime is prescribed, the market is left to determine financial strength for itself. It is mostly used in conjunction with rating agencies that rate schemes. In South Africa such rating agencies focus more on the ability of schemes to pay claims which is a smaller aspect of the risks schemes face. This framework would therefore be broadly inadequate.

### ii) Minimum capital rules

This is when a scheme is required to hold a minimum capital requirement. This is often a minimum nominal amount that is applicable to all schemes. It may be used in conjunction with other formulas. In practice it would need to be adjusted from time to time to match inflation.

### iii) Contribution based solvency

Regulation 29 is currently in this form. Schemes are required to keep a fixed percentage of their contributions as a solvency reserve. This is superior to the minimum capital framework as capital requirements are more specific to the schemes' circumstances. It still however has a number of drawbacks such as not allowing for the risks schemes carry.

#### iv) Contribution and claims experienced based solvency

Similar to contribution based solvency, it has added features of including previous claims experience in the determination of solvency. It's therefore an improvement from the former though it still has drawbacks. These include failure to account for other risks of the scheme.

#### v) Risk Based Capital

This approach seeks to determine the minimum solvency requirements for a scheme after considering the scheme's individual risk profile. Depending on the complexity of the formula/method, it has the potential to capture all the risk elements of the scheme and determine the amount of capital that would be required to meet those risks.

The major challenge in this approach is the complexity that it carries and the difficulty of communicating this approach.

#### vi) Statutory professional involvement

This relies on professionals to certify the financial strength of the scheme. It may be used alongside the former methods or in isolation. The certification would involve an in-depth analysis on the financial health of the scheme by the professionals.

The main challenge in this approach is the inconsistency it brings in the assessment. Schemes are not being assessed by the same standard.

## Solvency frameworks in other countries

### i) Australia

Australia has fully implemented a risk based approach. The medical schemes environment in Australia is similar to South Africa, though it's more developed than ours.

The number of insured lives in Australia is about 11 million covered by about 34 schemes (PHIAC 2014 annual report). In South Africa we have almost 9 million lives covered by 83 schemes. Both South Africa and Australia have minimum level of cover – in South Africa these are known as Prescribed Minimum Benefits. In Australia they have risk-equalisation across schemes while in South Africa this has not been implemented.

Both Australia and South Africa have community rating which prevent schemes from discriminating by gender, age, race and health status amongst other things.

The risk based framework in Australia is a two tier approach which sets out in the first tier the solvency requirements dealing with adequacy and quality of assets to ensure that obligations of the scheme are met and the second tier which deals with capital adequacy requirements to ensure financial continuity in light of the scheme's business plans and potential adverse outcomes.

The capital requirements are determined as follows:

The capital adequacy requirement is calculated taking the following into account:

- Asset risks
- Liability risks
- Insurance risk
- Outflows of capital, and
- Operational risk

There are explicit formulas that will be used to determine the capital requirements for these risk categories.

Solvency requirement

The regulations set out a formula for the determination of liquid assets that must be kept by the scheme to ensure it has sufficient cash to pay for claims. The regulations encourage schemes to set out liquidity management plans to ensure that there will always be enough cash to meet claims and other expenses.

## ii) The European Union

The European Union adopted the Solvency II regime for monitoring financial institutions. This applies to most financial institutions including health insurance.

This system is based on three pillars which are namely;

- Pillar 1: Risk based capital requirements that set out the minimum capital required for schemes. This is determined using a very prescriptive method.
- Pillar 2: This is the own risk assessment by the scheme, it encourages schemes to proactively manage risks. The scheme's future plans determine capital requirements.
- Pillar 3: This deals with transparency where a scheme takes more initiative to report to the public and regulators on its activities.

Pillar 1

The determination of the minimum capital requirement is done through quantitative techniques that focus on specific features of the scheme's balance sheet. The minimum capital requirement is set at a level to ensure that the probability of financial ruin is not more than 1 in 200 cases over one year.

Calculation of the minimum capital involves consideration of the following risks:

- Operational risks
- Market risks
- Liquidity risks
- Credit risk and
- Insurance risk

## Pillar 2

This aims to encourage schemes to take more ownership of risk management. Schemes would be encouraged to consider their risk more proactively and put in place mechanisms to manage these risks. The regulator would challenge schemes to demonstrate these plans and processes.

## Pillar 3

This aims to improve transparency and disclosure of information. Implementing such a process would improve governance as the regulator and the public/beneficiaries are more aware of how their schemes are managed.

## The way forward

The CMS is currently investigating the necessity to review the current solvency framework with a view to possibly moving towards a risk based approach. The risk based has an advantage of measuring the risks of individual schemes and setting the capital requirements at an appropriate level. This is in line with international solvency regimes.

The Research and Monitoring unit (R&M) of the CMS has investigated some of the merits and demerits of such a move towards risk based capital (RBC). The R&M unit furthermore developed a potential RBC model that could be used to determine solvency requirements should an RBC approach be preferred.

## The current framework

Section 29 (2) of the regulations to the Medical Schemes Act requires that “*medical schemes must maintain accumulated funds expressed as a percentage of gross annual contributions for the accounting period under review which may not be less than 25%*”.

The rationale of this framework is as follows:

- Medical schemes mostly experience very few short term risks. The major risks are mainly gradual and progress over a period of time. These risks are demographic – aging and morbidity. The short-term risks are mostly volatility in claims.

- Schemes have the ability to act fairly quickly, when required to increase contributions (although it is not very good for the members). Contributions can be adjusted over time as changes in risks are monitored. There are other additional risks which relate to operations and market risk (assets invested).
- A minimum reserve requirement of three months contribution cushion was considered sufficient to cater for corrective action to address these risks. This would give both the regulator as well as the scheme time to take corrective action (merge or wind up) should the scheme run into difficulties.

## Advantages of the current framework

The most obvious advantage of the 25% minimum solvency requirement is its simplicity to implement. Monitoring of this framework is also very easy. This framework is also very easy to explain.

## Shortcomings of the current framework

There are several disadvantages of the current solvency framework. Listed below are some of the disadvantages:

- The underlying risk faced by the schemes is not addressed – these risks are specific to schemes therefore a one-size-fits-all approach is inappropriate.
- Members need to contribute more than necessary to maintain reserves, in some cases the reserves may be too much in relation to the risks faced by the scheme. This disadvantage can be addressed by putting in place a framework which enables schemes to invest reserves so that they earn investment returns in line with contribution inflation.
- It fails to incentivise good risk management by schemes. A Risk Based Framework would encourage schemes to manage risks more proactively thereby benefiting from lower reserve requirements.
- This framework makes it difficult for schemes which are growing as they need to accumulate greater reserves. It may create the impression that schemes losing members are doing well due to their increasing solvency ratio, when in fact the opposite is true. A solvency framework should reward schemes for growing membership as this improves risk pooling.
- The calculation of the 25% solvency includes member's savings accounts.

## Alternative framework

A Risk based approach if implemented should meet the following requirements:

- Simple to implement – an overly complex framework would just increase regulatory costs in an environment that is already grappling with rising costs.
- Capture the most significant risks relevant to the schemes and determine appropriate levels of capital to mitigate such risks.
- Respond fairly quickly to the changing environment and the risks faced by medical schemes.
- The framework should be such that its implementation ensures that the medical scheme environment does not unfairly advantage some schemes while disadvantaging others.

## The proposed framework

In order to have more direct engagement and better comparison to the current framework, the CMS is proposing the framework below. This is not a conclusive framework, but a proposal that could be used as a basis for developing a framework suitable for the South African market.

A more technical and descriptive document on this proposed framework is available on (<http://www.medicalschemes.com/files/Research%20Briefs/RBCMdl20151125.pdf>).

- I. Business risks faced by schemes: This will entail construction of a model that can be used to determine the minimum capital required for a scheme to meet business needs over a specified time period within a specified risk tolerance. The model in question should address key risk issues such as negative net-healthcare results, claims volatility, underpricing, fluctuations in asset values and non-healthcare expenditure.

This model will project the full revenue account and the balance sheet of the scheme for a period of 3 years over a number of scenarios. The chance of failure of a scheme i.e. when the value of net assets fall below zero is calculated. This model should apply to all schemes and minor variations (claims volatility calculations) may be made so as to accurately assess individual risks of schemes.

The proposed model determines the minimum capital required such that the chance of insolvency is 1 in a 100 over a three year period. A three year period is preferred as it is a longer term view than a single year.

- II. Asset risk: A risk resilience approach could be used to determine the extra capital given how the assets are invested in the various assets classes. The amount of capital would be higher for assets which are more risky. A risk factor should be allocated to each asset class and this is to be multiplied by the amount of holding in the particular asset class to determine the capital requirement for the specific asset class. The risk factors should also be dynamic in light of changing market conditions.

It is proposed that the maximum loss in major indices, the All Share Index (ALSI) and the All Bond Index (ALBI) on the Johannesburg Stock Exchange over a period of time say 20 years be used to determine the solvency requirement. If the maximum monthly loss on the ALSI over the last 20 years was 35% then the reserve requirement in respect of Equity should be the value of shares held by the scheme multiplied by 35%. This reserve requirement will be calculated for each asset class and added together to obtain the asset risk reserve requirement.

The 20 year period above is only illustrative, if the RBC model were to be implemented the actual time period will be determined in consultation with stakeholders.

Simply put, schemes will hold more risky assets only if they can afford to as the solvency requirements increase if a scheme increases its exposure to risky assets.

- III. Operational Risk: This is probably the most significant risk faced by schemes and the most difficult risk to measure accurately. A number of schemes that have failed have done so due to shortcomings in governance. The tools available at the CMS to help mitigate some of the operational risks include monitoring complaints trends and compliance of schemes through regular inspections. A proper risk based approach should pay close attention to operational risk and a framework should be developed that will require more capital to be held if a scheme is showing signs of higher levels of operational failures.

***The use of complaints and compliance reports in determining operational risks***

The proposed RBC model incorporates a complaints index which measures how many complaints are made against a scheme. These are categorised into various groups to enable better risk assessment. For instance, complaints relating to the non-payment of benefits will contribute more to the index, while administrative complaints contribute less to the index. An index is calculated for each scheme which is in turn used to determine the reserve requirements. A scheme with higher complaints will need to keep higher capital.

A similar approach is adopted with compliance. There are fields of inspection covered by the CMS inspectors. The inspectors look at the schemes governance structures, risk registers, general management of the scheme, and other operational factors. Appropriate weights in relation to importance are allocated to each field and sub-field inspected. Once an inspection is completed a compliance index will be calculated which will be used to determine the reserve requirement. Full compliance with the requirements of the Medical Schemes Act will lead to very low reserve requirements.

CMS is of the view that measuring operational risk in this way will encourage efficiency in the way schemes are managed. Schemes will pay close attention to complaints and try to resolve them before reaching CMS. In addition, schemes will be rewarded for full compliance with the requirement of the Medical Schemes Act through reduced capital requirements. These will ultimately benefit the beneficiaries. More details on how operation risk reserve requirements will be calculated are available in the technical document.

## Factors to consider when changing the solvency framework

The transition to a risk based approach is of vital importance. The competitive environment between schemes should remain unchanged and fairness is important amongst the schemes. If this is not addressed in detail the transition has the potential to change the medical schemes environment potentially to the detriment of the industry.

- Impacts on markets – currently two very large schemes cover just about half of the insured lives. There are also other large schemes with significant reserves. A move away from the current solvency framework towards a RBC approach would mean these schemes get a bigger competitive advantage (in the short-to-medium term at least). Since these schemes are likely to reduce their solvency requirements significantly. This will leave them with a lot of reserves. A RBC could make it more difficult for smaller schemes to grow while the big schemes will find it very easy to grow if the bigger schemes use their excess reserves to gain more market share.

It is therefore vital that the transition should be managed well so as to ensure market stability.

- A more robust RBC system would also require a lot of infrastructure to be implemented. It requires closer monitoring, more comprehensive reporting on the part of the schemes. There will be additional costs incurred by both the schemes and the CMS to implement such a system.

## Stakeholder comments

The CMS would like to invite the industry to comment on the proposal regarding review of the solvency framework. Council seeks to solicit stakeholder's views on the necessity to review this framework for the industry, and the rationale thereof including risks that should be considered that are relevant to the South African private healthcare environment. Stakeholders are encouraged to submit any comments they may have on this circular by 29 February 2016. Please forward your comments and suggestions to the following address: [solvency@medicalschemes.com](mailto:solvency@medicalschemes.com).

Furthermore, should there be strong views on a move towards a risk based approach, the CMS would like to hear stakeholder views on how the transition should be managed.

The CMS has placed on the table, to aid discussion, a proposed RBC framework that could be implemented to help determine the solvency requirements. Stakeholders are also invited to comment on the merits of this proposal.

Alternative frameworks are also welcome for further consideration. The intention of a RBC framework would be to achieve the following:

- Provide the CMS with an early warning system that a scheme is running into difficulties
- Capture the risks faced by schemes as far as possible
- Not be overly complex – simple to implement but not too simple to miss the essential risks faced by the schemes

- Applicable to all schemes (with a few changes to match the scheme's individual circumstances) to reduce the administrative burden and associated costs

## Looking ahead

This circular represents the initial stage of this process. The CMS foresees the following happening:

- Submissions from stakeholders.
- The registrar' office will consolidate the submissions and notify the stakeholders of the summary of the submissions.
- The office of the registrar will consider submissions and submit proposals to the Council.
- Stakeholders will be notified by the office of the registrar after receiving feedback from Council.

The office of the registrar would also like to notify stakeholders, should Council consider a risk based approach, the CMS will actively engage with stakeholders to come up with the most appropriate RBC framework. The implementation will also be consultative and may be phased in over a period of time to allow for a smooth transition. This may involve the use of both frameworks during the phase in period.



**Dr A de Villiers**  
**General Manager: Research and Monitoring**  
**Council for Medical Schemes**