South African Reserve Bank
Prudential Authority

Prudential Standard FSI 3

Calculation of the Minimum Capital Requirement

Objectives and Key Requirements of this Prudential Standard

This Standard sets out the methodology for calculating the Minimum Capital Requirement (MCR) under the Financial Soundness Standards for Insurers. The MCR is a solvency control level which, if breached, is likely to result in the strongest regulatory intervention from the Prudential Authority.

The MCR is a simple measure that combines a linear formula linked to the scale of the insurer's business, with an upper/lower band linked to the Solvency Capital Requirement (SCR), as well as an absolute minimum denominated in Rand.

The ultimate responsibility for ensuring that the insurer maintains an appropriate level and quality of Eligible Own Funds to satisfy the MCR on a continuous basis rests with its board of directors.

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1. Application

1.1. This Standard applies to all insurers licensed under the Insurance Act, 2017 (the Act), other than microinsurers, Lloyd's and branches of foreign reinsurers.

1.2. Unless otherwise indicated, all references to "insurer" in this Standard can be read as a reference to life insurers, non-life insurers and reinsurers. Similarly, a reference to "insurance" obligations/policies in this Standard can be read as a reference to "reinsurance" obligations/policies, unless otherwise specified.

2. Roles and Responsibilities

2.1. Ultimate responsibility for the prudent management of the financial soundness of an insurer rests with the insurer's board of directors. The board of directors must ensure the insurer maintains an appropriate level and quality of eligible own funds to satisfy the Minimum Capital Requirement (MCR) on a continuous basis. The board of directors must also ensure that the insurer has in place appropriate systems,

procedures and controls to meet the principles and requirements of this Standard on an ongoing basis.

2.2. Insurers must calculate the MCR at least quarterly and report the results of that calculation to the Prudential Authority.

2.3. An insurer's head of actuarial function is responsible for expressing an opinion to the board of directors regarding the accuracy of the calculations underlying the MCR.

2.4. An insurer's auditor appointed under section 32 of the Act must audit the financial soundness of an insurer in accordance with its legal and regulatory obligations. The auditor must report to the board of directors and Prudential Authority any matters identified during the performance of its responsibilities that may cause the insurer to be not financially sound.

2.5. If the Prudential Authority is satisfied that an insurer has failed or may, in the following three months, fail to meet the prescribed MCR it may, in addition to directing the insurer to rectify the breach, suspend or withdraw the insurer's licence, or exercise the resolution powers set out in Chapter 9 of the Act.

2.6. The roles and responsibilities of the board of directors and the head of actuarial function are described in more detail in the Governance and Operational Standards for Insurers (GOI 3).

3. Commencement and Transition Provisions

3.1. This Standard commences on 1 July 2018.

Version Number	Commencement Date
1	1 July 2018

4. Principles Underlying the MCR

4.1. The Financial Soundness Standards for insurers incorporates two measures of required capital for regulatory purposes:

a) The MCR – which is designed to be a relatively simple measure that establishes the absolute minimum level of eligible own funds that the Prudential Authority considers necessary to protect policyholders; and
b) The Solvency Capital Requirement (SCR) – which is a more risk-based and forward-looking measure of required capital that establishes the minimum level of own funds required to ensure the value of assets will exceed technical provisions and other liabilities at a 99.5% level of certainty over a one-year time horizon.

4.2. The MCR is a level of financial soundness which, if breached, is likely to result in the strongest regulatory intervention.

4.3. The MCR is designed to be a relatively simple measure that combines a linear formula linked to the scale of the insurer's business, with an upper/lower bound linked to the SCR. The MCR is subject to an absolute floor, expressed in Rand, that relates to the scope of an insurer's activities and operating expenses. The MCR is determined by the linear formula unless one of the boundary conditions applies.

4.4. The MCR applies equally to life insurers, non-life insurers and reinsurers, with the general structure of the computations consistent between the different types of insurer. Reinsurers that write both life and non-life insurance obligations, referred to as "composite reinsurers" in this Standard, must calculate separate MCRs for their and life and non-life businesses, and aggregate these requirements as set out in section 9 below.

5. General Structure of the MCR

5.1. The MCR is measured as a combination of the following three factors:

a) A "linear formula" that is a simple factor-based combination of basic volume measures – the linear formula is calibrated to the value-at-risk of the basic own funds of an insurer subject to a confidence level of 85% over a one-year period;
b) A cap of 45% and a floor of 25% of the SCR (calculated using either the standardised formula or an internal model) – the cap and the floor together are referred to as the "corridor"; and
c) An absolute floor, denoted as "$AMCR$", which is the higher of R15 million (R30 million for composite reinsurers), and 25% of the annualised operating expenses of the insurer in the preceding 12 months before the valuation date.

5.2. Any capital add-on imposed by the Prudential Authority on an insurer's SCR must be included as part of the calculation of the MCR (specifically, as part of assessing the cap and floor that define the corridor).

5.3. For insurers (other than composite reinsurers) the MCR must be calculated as:

$$MCR = max(MCR_{combined}, AMCR)$$

Where:

$AMCR$ = $max(R15\ million, 25\% \cdot Op\_Expenses)$

$Op\_Expenses$ = Gross annualised expenses incurred in carrying on an insurer's day-to-day activities including claims handling expenses, management expenses, asset management and fund management fees, and excluding:

a) Acquisition expenses relating to the cost of acquiring new business;
b) Depreciation of inventories to net realisable value;
c) Depreciation of property, plant and equipment to recoverable amount and the reversal of such write-downs;
d) The cost of restructuring the activities of the insurer and the reversal of any provisions for the cost of restructuring;
e) The disposal of property, plant and equipment;
f) The realisation of long-term investments;
g) Gains and losses arising from natural disasters and expropriation; and
h) Asset management and fund management fees directly related to linked policies.

$MCR_{combined}$ = The MCR produced by combining the linear formula with the

cap and floor in the corridor, calculated as:

$$MCR_{combined} = min[max(MCR_{linear}, 25\% \cdot SCR), 45\% \cdot SCR]$$

MCR_{linear} = The MCR calculated using the linear formula, as set out in sections 6 to 8 below for life and non-life insurance obligations

SCR = The SCR of the insurer

5.4. The MCR for composite reinsurers must be calculated in accordance with the requirements set out in section 9 below.

6. The Linear Formula – Key Elements

6.1. The linear formula must be calculated separately for life insurance obligations (MCR_L) and non-life insurance obligations (MCR_{NL}).

6.2. The volume measures in the linear formula should be allocated between the two components (MCR_L and MCR_{NL}) without double-counting.

6.3. The MCR calculated using the linear formula must be segmented according to the lines and sub-lines of business specified in Attachment 1 of FSI 2.2 (Valuation of Technical Provisions).

6.4. The linear formula uses various volume measures. Each is a measure of an insurer's business scale and is used to proxy risk. Life insurance obligations use technical provisions, net of eligible reinsurance and excluding the risk margin, and capital-at-risk as defined in section 7.1 below. Non-life insurance obligations also use technical provisions, net of eligible reinsurance and excluding the risk margin, and earned premiums net of eligible reinsurance.[1]

7. Linear Formula for Life Insurance Obligations

7.1. The linear formula component of the MCR for life insurance obligations (MCR_L) must be calculated as:

$$MCR_L = max\left[\sum_{Funds} max(\alpha_{C.1.1} \cdot C.1.1 + \alpha_{C.1.2} \cdot C.1.2, 0), WP_{floor} \cdot C.1.1\right] + \sum_{j \in \{2.1, 2.2, 3, 4\}} \alpha_{C.j} \cdot C.j$$

Where:

WP_{floor} = 2%

$Funds$ = The product groups /funds with discretionary participation features

The factors $C.j$ and $\alpha_{C.j}$ are defined according to the following table for each type of insurance obligation *j* specified below:

[1] This volume measure should reflect earned premiums net of eligible reinsurance as defined in FSI 4.3 (Non-life Underwriting Risk Capital Requirement).

Index j	$C.j$	$\alpha_{C.j}$	Lines and sub-lines of business covered as per Part A of Attachment 1 of FSI 2.2 (Valuation of Technical Provisions)
Policies with discretionary participation features:			
1.1	Minimum liability calculated as *BEL_min* as defined in the calculation of the loss-absorbing capacity of technical provisions in the SCR (refer to Attachment 2 of FSI 4.1 (Market Risk Capital Requirement))	6.2%	2a(iii), 3a(iv), 3b(iv), 3c(iv), 3d(iv), 4a(v), 4b(v), 5a(xi), 5b(xi), 5c(xi)
1.2	Loss-absorbing capacity of technical provisions calculated as *BEL – BEL_min*, as defined in the calculation of the loss-absorbing capacity of technical provisions in the SCR (refer to Attachment 2 of FSI 4.1 (Market Risk Capital Requirement))	-6.7%	
Policies where the policyholder bears the investment risk:			
2.1	Technical provisions for policies without investment guarantees (net of eligible reinsurance and excluding the risk margin)	0.5%	2a(ii), 3a(ii), 3a(iii), 3b(ii), 3b(iii), 3c(ii), 3c(iii), 3d(ii), 3d(iii), 4a(iii), 4a(iv), 4b(iii), 4b(iv), 5a(ix), 5a(x), 5b(ix), 5b(x), 5c(ix), 5c(x)
2.2	Technical provisions for policies with investment guarantees (net of eligible reinsurance and excluding the risk margin)	1.8%	3a(i), 3b(i), 3c(i), 3d(i), 4a(ii), 4b(ii), 5a(viii), 5b(viii), 5c(viii)
Policies without profit participation:			
3	Technical provisions for policies without profit participation (net of eligible reinsurance and excluding the risk margin)	2.9%	All business not included in C.1 or C.2 above
All policies with death, disability or health benefits:			
4	The “capital-at-risk” for each policy. This measure should be calculated as the sum of financial strains for each policy on immediate death or disability where it is positive. The financial strain on immediate death or disability is the amount currently payable on death or disability of the insured and the present value of annuities payable on death or disability of the insured less the net technical provisions (not including the risk margin) and less the increase in reinsurance recoverables which is directly	0.1%	All policies with death, disability or health benefits

Index *j*	$C.j$	$\alpha_{C.j}$	Lines and sub-lines of business covered as per Part A of Attachment 1 of FSI 2.2 (Valuation of Technical Provisions)
	caused by death or disability of the insured. While the calculation should be based on a policy-by-policy approach, reasonable actuarial techniques and approximations may be used in accordance with the calculation of the best estimate. For example, the calculation may be performed at a product level consistent with the simplification approaches for calculating mortality and disability-morbidity capital requirements in FSI 4.2 (Life Underwriting Risk Capital Requirement).		

7.2. Technical provisions for life reinsurance obligations should be apportioned according to the segmentation of direct classes, using the same factors as for direct business. The technical provisions of life reinsurance obligations with discretionary participation features should be completely assigned to $C.1.1$.

8. Linear Formula for Non-Life Insurance Obligations

8.1. The linear formula component of the MCR for non-life insurance obligations (MCR_{NL}) must be calculated as:

$$MCR_{NL} = \sum_j max(\alpha_j \cdot TP_j , \beta_j \cdot P_j)$$

Where:

TP_j = Technical provisions (excluding the risk margin) for each line and sub-line of business *j*, net of eligible reinsurance, subject to a minimum of zero

P_j = Earned premiums in each line and sub-line of business *j* over the last 12 month period, net of eligible reinsurance, subject to a minimum of zero

The factors α_j and β_j for each line and sub-line of business are defined according to the table below:

Index *j*	Reporting Class	Lines and sub-lines of business covered as per Part B of Attachment 1 of FSI 2.2 (Valuation of Technical Provisions)	α_j	β_j
Direct and corresponding proportional reinsurance business				
1	Motor	1, 18a, 18d	13%	11%

Index j	Reporting Class	Lines and sub-lines of business covered as per Part B of Attachment 1 of FSI 2.2 (Valuation of Technical Provisions)	α_j	β_j
2	Property	2, 18a, 18d	14%	13%
3	Agriculture	3, 18a, 18d	20%	17%
4	Engineering	4, 18a, 18d	14%	13%
5	Marine	5, 18a, 18d	18%	22%
6	Aviation	6, 18a, 18d	18%	22%
7	Transport	7, 18a, 18d	18%	22%
8	Rail	8, 18a, 18d	18%	22%
9	Legal Expense	9, 18a, 18d	20%	17%
10	Liability	10, 18a, 18d	14%	20%
11	Consumer Credit	11, 18a, 18d	25%	28%
12	Trade Credit	12, 18a, 18d	25%	28%
13	Guarantee	13, 18a, 18d	25%	28%
14	Accident and Health	14, 18a, 18d	20%	17%
15	Travel	15, 18a, 18d	20%	17%
16	Miscellaneous	16, 18a, 18d	20%	17%
17	Terrorism	17, 18a, 18d	20%	17%
Non-Proportional and other business				
18	Reinsurance	18 b, c, e, f	26%	21%

9. MCR for Composite Reinsurers

9.1. For composite reinsurers, the MCR must be calculated as:

$$MCR_{composite} = max(MCR_{combined\_Life} + MCR_{combined\_NL}, AMCR_{composite})$$

Where:

$AMCR_{composite}$ = $max(R30\ million, 25\% \cdot Op\_Expenses)$

$Op\_Expenses$ = Gross annualised expenses incurred in carrying on an insurer's day-to-day activities, as defined in section 5.3 above

$MCR_{combined\_Life}$ = Notional MCR for life insurance obligations produced by combining the linear formula with the cap and floor in the corridor (refer to section 9.2 below)

$MCR_{combined\_NL}$ = Notional MCR for non-life insurance obligations produced by combining the linear formula with the cap and floor in the corridor (refer to section 9.2 below)

9.2. The notional combined life and non-life MCRs must be calculated as:

$$MCR_{combined\_Life} = min\left[max\left(MCR_L, 25\% \cdot NSCR_{Life}\right), 45\% \cdot NSCR_{Life}\right]$$

$$MCR_{combined\_NL} = min[max(MCR_{NL}, 25\% \cdot NSCR_{NL}), 45\% \cdot NSCR_{NL}]$$

Where:

$NSCR_{Life}$	=	$\frac{MCR_L}{MCR_L + MCR_{NL}} \cdot SCR$
$NSCR_{NL}$	=	$\frac{MCR_{NL}}{MCR_L + MCR_{NL}} \cdot SCR$
MCR_L	=	The linear formula component for life insurance obligations (calculated in accordance with section 7.1 above)
MCR_{NL}	=	The linear formula component for non-life insurance obligations (calculated in accordance with section 8.1 above)
SCR	=	The SCR of the composite reinsurer