INSURANCE REGULATORY COMMISSION OF SRI LANKA

Solvency Margin (Risk-based Capital) Rules

Exposure Draft

Issued on: 16 September 2025

Responses due by 15 November 2025

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This Exposure Draft ("**ED**") sets out proposed regulatory changes to Solvency Margin (Risk-based Capital) Rules, 2015 ("**RBC Rules**", "**Rules**", "**framework**") which were issued by Insurance Regulatory Commission of Sri Lanka ("**IRCSL**", "**Commission**") under section 105 read with section 26(1) of the Regulation of Insurance Industry Act, No. 43 of 2000 ("RII Act") and implemented with effect from 1 January 2016. In developing the ED, the Commission has taken into consideration the evolving asset markets, dynamic economic conditions of Sri Lanka and developments by global regulatory forums (Risk-based Global Insurance Capital Standard, issued by International Association of Insurance Supervisors). These proposed changes focus on ensuring adequate liability and capital assessments by insurers in Sri Lanka, reflective of risks undertaken by insurers.

While setting the ED, the Commission has taken into account the comments received via:

a. **Consultation form:** Responses received on consultation form issued by the Commission to long-term and general insurers were evaluated to gather industry insights on targeted improvements required in the RBC Rules;

b. Self-assessments of improvements required in current RBC Rules as undertaken within the Commission;

c. RBC task-force as setup by the Commission, with representatives from Insurance Association of Sri Lanka (IASL), Actuarial Association of Sri Lanka (AASL), insurance companies, National Insurance Trust Fund (NITF) and IRCSL – this task-force submitted report to the Commission on proposed improvements;

d. Public consultation: The Commission invited responses, via public consultation, from interested parties to provide their views and comments on the proposed RBC consultation including issues or areas to be clarified or elaborated further and any alternative proposal that the Commission should consider.

e. Responses received from select insurers on the public consultation were also evaluated

The Commission has issued this ED to undertake Quantitative Impact Study (QIS) to understand and evaluate the impact of proposed changed in the RBC Rules. The Commission has also issued a response template concurrently with the ED and requests all insurers to provide their responses via this template. The text highlighted in **bold** in this ED represents various options to be assessed as part of the QIS.

Please be informed that response template should be submitted to the Commission on or before 15 November 2025 by e-mail to rbc.consultation@ircsl.gov.lk

In the course of preparing your response, you may direct any queries to the actuarial unit of IRCSL via email on rbc.consultation@ircsl.gov.lk.

Solvency Margin (Risk-based Capital) Rules

Part I

Application

1. These Rules may be cited as the Solvency Margin (Risk Based Capital) Rules, **[year of implementation]**.

2. These rules shall apply to every insurer registered and licensed under the RII Act, with effect from **[date of implementation].**

Part II

Required Financial Resources

3. Every insurer shall, with effect from **[date of implementation]**, maintain a Capital Adequacy Ratio (hereinafter referred to as the "CAR") of a minimum of 120%.

4. Every insurer shall, with effect from **[date of implementation]**, maintain a Total Available Capital (hereinafter referred to as "TAC") of a minimum of rupees Five Hundred million.

5. Further, the Commission shall intervene in line with enforcement strategy on risk-based capital, where CAR is between 120% and 160% level.

6. (1) Every insurer shall, taking into consideration the nature, size, and complexity of its insurance business and the risk to which it is exposed, without prejudice to rule 3, 4 and 5 maintain a prudent CAR and adequate TAC.

   (2) Every insurer shall have, in order to comply with the provision of paragraph (1), adequate risk management systems with strategies, processes, and reporting procedures appropriate to identify, measure, monitor, and report, on a continuous basis, the risks to which the insurer is or could be exposed, and their interdependencies.

7. (1) Every insurer shall, taking into consideration the nature, size, and complexity of its insurance business, and the risks to which it is exposed, value its assets and liabilities including policy liabilities under these rules at least quarterly during the year.

   (2) Every insurer shall inform the Commission the basis of, and justification for, material discretionary decisions taken by the insurer under these rules, including decision on assumptions, adjustments, internal models, time periods, methods and techniques, either in notes to its quarterly reports, or otherwise, within a reasonable period after the decision has been taken.

8. (1) Every insurer shall inform the Commission of its compliance with these rules, in the form, manner and during such period as the Commission may specify in that behalf.

   (2) The Commission may require such insurer to provide supporting documents on the compliance with a certification from an independent actuary or other skilled person, whose qualifications may be specified by the Commission, at the cost of the insurer.

9. (1) Where an insurer has reasonable reasons to believe that such insurer is or is likely to be, in breach of rule 3, 4, 5 or 6, such insurer shall report the breach or likely breach to its board of directors and to the Commission as soon as possible.

   (2) Where in the opinion of the Commission, an insurer has failed, or is likely to fail, to comply with rule 3, 4, 5 or 6 as aforesaid the Commission may require such insurer to provide a plan to

restore its financial position, in the form and manner that the Commission may specify in that behalf.

(3) The Commission may require the insurer to provide a supporting opinion on the plan from an independent actuary or other skilled person, whose qualifications may be specified by the Commission, at the cost of such insurer.

Part III

Determination of TAC and CAR

10. Subject to the provisions of rule 14, TAC is the total of Tier 1 and Tier 2 capital of an insurer, minus the deductions required by rule 13.

11. Tier 1 capital comprises:

    a. issued and fully paid up ordinary shares and share premiums;

    b. capital reserves;

    c. paid up non-cumulative irredeemable preference shares;

    d. adjusted retained earnings or accumulated losses taking into account;

        i. adjustments for available for sale reserves that may be required or permitted under Sri Lanka Accounting Standards (adjusted for fair value losses)

        ii. adjustments for differences in asset or liability values between the values calculated under these Rules and those calculated under Sri Lanka Accounting Standards (whether positive or negative);

        iii. any other fair value losses (not already captured in (i) and (ii) above);

    e. unallocated valuation surplus in the long term insurance fund, that is, surplus that has not yet been allocated between policyholders and shareholders; and

    f. In the case of long term insurance business, 100% of Reserve Floor Adjustment determined with respect to negative reserves.

12. Tier 2 capital comprises:

    a. cumulative irredeemable preference shares;

    b. redeemable preference shares;

    c. mandatory capital loan stock and other similar capital instruments;

    d. revaluation reserves for self-occupied properties and other property investments;

    e. revenue reserves, excluding retained earnings;

    f. irredeemable subordinated debt; and

    g. In the case of long term insurance business, Restricted Regulatory reserve

h. subordinated debt that:

i. has a minimum five-year term,

ii. is unsecured; and

iii. is subject to a lock-in clause precluding payment of either interest or principal (even at maturity) if the payment would cause the insurer's CAR to fall, or remain, below capital adequacy ratio specified in rule 3 (hereinafter referred to as "RCAR").

13. In determining TAC, insurers shall deduct from the total of Tier 1 capital and Tier 2 capital :-

a. goodwill and other intangible assets, including capitalised expenditure ;

b. inadmissible land, building, other immovable property, plant, and equipment;

c. inadmissible loans and advances, except agent balances and staff loans;

d. deferred income tax assets;

e. prepayments;

f. inventory;

g. tax receivables;

h. assets pledged to support credit facilities;

i. claims receivable under policies held by an insurer for its own benefit (except reinsurance policies) ;

j. claims receivable under contract of co-insurance **overdue for more than six months/nine months/twelve months**;

k. investments in shares that do not fall within the category of asset listed in Column 1 of Table 1;

l. investments in related parties that are prudentially regulated financial institutions;

m. investments in related parties that are not listed on a licensed stock exchange;

n. positive net amounts receivable from a reinsurer, overdue for more than **nine months/twelve months** after setting off against any amounts due to the reinsurer; and

o. inadmissible mortgage loans in the case of General Insurance Business.

14. In determining TAC, Tier 2 capital shall not exceed 50% of Tier 1 capital

15. Every insurer shall determine CAR using the following formula:

$$CAR = (TAC/RCR) \times 100$$

where RCR is determined in accordance with the rules in Part VII.

Part IV

Admissible assets, asset limits, and asset valuation

16. (1) For the purpose of determining CAR, the assets in the categories listed in the first column of table 1 are permitted (hereinafter referred to as "admissible assets") up to the maximum percentage limit of the total value of an insurer's admissible assets (including admissible assets in shareholders' funds), and subject to any overall-or sub-limits, specified in the second column.

(2) Subject to the provisions of paragraph (3) and notwithstanding the provisions of paragraph (1); if

a. debt securities

b. corporate debt issued by a bank;

c. corporate debt issued by a company;

d. asset backed securities; or

e. interest bearing deposits with a bank or finance company

were issued,

A. outside Sri Lanka or by an entity established outside Sri Lanka, the assets are admissible only if the asset or entity, as the case may be, carries a credit rating (hereinafter referred to as the "Investment grade rating") assigned in the eighteen-month period preceding the valuation date, that is not lower than:

i. the rating specified for the related credit rating agency in Part A of the Schedule hereto; or

ii. an equivalent rating from a credit rating agency approved by the Commission; or

B. in Sri Lanka or by a company, established in Sri Lanka the assets are admissible only if the asset or company, as the case may be, carries an investment grade rating, assigned in the eighteen-month period preceding the valuation date, that is no lower than:

i. the rating specified for the related credit rating agency in Part B of the Schedule hereto; or

ii. an equivalent rating from credit rating agency registered under the Securities and Exchange Commission of Sri Lanka Act, No. 19 of 2021.

(3) The provisions of paragraph (2) do not apply to investments in related parties, or to unlisted equity and corporate debt held in shareholders' funds.

Table 1: Admissible assets and limits

Admissible asset category	Maximum percentage
(a) i. Government securities issued by Central Bank of Sri Lanka ii. Debt Securities fully guaranteed by Government of Sri Lanka	100%
(b) Debt securities: i. issued or fully guaranteed by a foreign government or a central bank of a foreign country, and	20%

Admissible asset category	Maximum percentage
ii. carrying an investment grade rating to the instrument	
(c) Ordinary shares of a company (that is not a related party) listed on a licensed stock exchange	For general insurance business, 30% For long term insurance business 40%
(d) Corporate debt (including bonds, debentures, commercial papers and similar financial instruments) issued by a licensed commercial bank or a licensed specialised bank (that is not a related party) and i. carrying an investment grade rating to the instrument, or ii. Backed by guarantee issued by a licensed commercial bank or a licensed specialized bank carrying an investment grade rating (that is not a related party), or iii. Backed by a guarantee issued by a multilateral agency	For general insurance business, 60%, subject to an overall limit of 60% for corporate debt in d), (e), (f), (g), (h) and (i) of Table 1 For long term insurance business, 50% subject to an overall limit of 50% for corporate debt in d), (e), (f), (g), (h) and (i) of Table 1
(e) Corporate debt (that is not related party debt) (including bonds, debentures, commercial papers, and similar financial instruments) listed on licensed stock exchange	10%, subject to an overall limit of 60% or 50%, as the case may be, for corporate debt in (d), (e), (f), (g), (h) and (i) of Table 1
(f) Corporate debt (that is not related party debt) (including bonds, debentures, commercial papers, and similar financial instruments) i. issued by a company; and ii. carrying an investment grade rating to the instrument	10%, subject to an overall limit of 60% or 50%, as the case may be, for corporate debt in (d), (e), (f), (g), (h) and (i) of Table 1
(g) Asset backed securities (except securities issued or guaranteed by a related party) ; i. where the capital and interest or the maturity value, as the case may be, is fully guaranteed by a licensed commercial bank or a licensed specialised bank carrying an investment grade rating ; or ii. that are issued by a company listed on a licensed stock exchange and carrying an investment grade rating to the instrument.	10%, subject to an overall limit of 60% or 50%, as the case may be, for corporate debt in (d), (e), (f), (g), (h) and (i) of Table 1
(h) Green, Social and Sustainable bonds (that is not related party debt) listed on a licensed stock exchange	10%, subject to an overall limit of 60% or 50%, as the case may be, for corporate debt in (d), (e), (f), (g), (h) and (i) of Table 1
(i) Corporate debt carrying an investment grade rating to the instrument (that is not related party debt) (including bonds, debentures, commercial papers, and similar financial instruments) issued by the licensed finance company listed on a licensed stock exchange and carrying and investment grade rating	10%, subject to an overall limit of 60% or 50%, as the case may be, for corporate debt in (d), (e), (f), (g), (h) and (i) of Table 1
(j) Interest bearing deposits with a licensed commercial bank or a licensed specialised bank carrying an investment grade rating	40%, subject to an overall limit of 40% for interest bearing deposits in (j) and (k) of Table 1
(k) Interest bearing deposits with a licensed finance company. i. listed on a licensed stock exchange; and ii. carrying and investment grade rating	10%, subject to an overall limit of 40% for interest bearing deposits in (j) and (k) of Table 1
(l) Other cash and cash equivalents, not included in other asset categories in this Table, subject to any restrictions that may be imposed by the Commission	4%
(m) Freehold land and buildings occupied by the insurer	For general insurance business, 10% For long term insurance business, 15%
(n) Freehold land and buildings held for investment purposes	For general insurance business, 10% For long term insurance business, 15%

Admissible asset category	Maximum percentage
(o) Long term leasehold land and building Note: Insurers may seek case-by-case clarification / approval from the Commission on treatment of leasehold land and building constructed by lessee on leasehold land, with such assessment typically based on factors such as the nature of the underlying lease, terms and conditions, the fair value of the construction, etc	The maximum admissible limit shall be: For general insurance business, 10% For long term insurance business, 15% subject to an overall limit of 10% or 15%, as the case may be, for freehold land and building in (m), (n) and (o) of Table 1
(p) Investments in related parties, which parties are listed on a licensed stock exchange, except prudentially regulated financial institutions	7.5% But no single exposure may exceed 5%
(q) Unlisted shares and corporate debt investments (except investments in related parties) - held in shareholders' funds	5%
(r) Unrated corporate debt investments - held in shareholders' funds	5%
(s) Unit trusts and mutual funds	25%
(t) Gold kept in safe custody in a licensed commercial bank or a licensed specialised bank	20%
(u) Positive net amounts receivable from reinsurers for no longer than **9 or 12** months, after setting-off amounts due from the insurer to the reinsurer	100%
(v) Positive net amounts receivable from the co-insurer for no longer than 6 or **9 or 12** months, after setting-off amounts due to the co-insurer	100%
(w) Receivables arising from equity sales for a period of not greater than two days	100%
(x) For long term insurance business, outstanding policy loans that do not exceed the surrender value of the policy	100%
(y) For long term insurance business, accrued premium (or premium instalment) outstanding for no longer than the shorter of thirty days or the period within which the premium shall be paid under the policy	100%
(z) 1. For general insurance business written with respect to travel insurance, marine insurance, title insurance and bonds issued by insurance companies - accrued premiums outstanding for no longer than fifteen days if collected via brokers (i.e. two weeks of credit as per Section 89 of the RII Act). 2. For general insurance business written with respect to motor insurance, accrued premiums outstanding for no longer than thirty days (collected via all other means except via brokers) no longer than forty five days if collected via brokers (i.e. thirty days plus two weeks of credit as per Section 89 of the RII Act). With effect from 1 January 2028, accrued premiums outstanding for no longer than fifteen days if collected via brokers (i.e. two weeks of credit as per Section 89 of the RII Act). 3. For all other general insurance business, accrued premiums outstanding for no longer than thirty days (collected via all other means except via brokers) no longer than forty five days if collected via brokers (i.e. thirty days plus two weeks of credit as per Section 89 of the RII Act). With effect from 1 January 2028, accrued premiums outstanding for no longer than fifteen	100%

Admissible asset category	Maximum percentage
days if collected via brokers (i.e. two weeks of credit as per Section 89 of the RII Act).	
(aa) For general insurance business, mortgage loans on immovable property approved by the Commission as at 31.12.2010	20%, but no single exposure may exceed 80% of the value of the security, based on strict valuation rules (and any excess shall be deducted from TAC)

17. If all the assets in a particular asset category in column 1 of Table 1, taken together exceed the related admissibility limits in Column 2, insurers shall ;

    (a) unless the provisions of paragraph (b) apply, progressively exclude the assets with the lowest credit rating until the limit is reached ; or

    (b) in an asset category where the assets are not rated, progressively exclude the assets with the highest risk profile, and the excluded assets, or part assets, are not admissible assets.

18. Notwithstanding the provisions of rule 16(2), assets located outside Sri Lanka are not admissible assets unless the insurer has obtained the permission of the Commission under Section 25(3) of the RII Act.

19. Encumbered assets are not admissible and the corresponding liabilities with regard to encumbered assets shall not be taken into account in calculating CAR.

20. (1) Subject to the provisions of paragraph (2), for the purpose of calculating CAR, insurers shall value admissible assets in the categories listed in Column 1 of the Table 2 using a market consistent approach in accordance with the related valuation principles in Column 2.

    (2) Every insurer shall value assets that are not in a category listed in Column I of Table 2 using a market consistent approach or, if a market consistent approach cannot reasonably be applied, using Sri Lanka Accounting Standards.

Table 2: Valuation of Assets

Admissible asset category	Maximum percentage
(a) Government securities issued by Central Bank of Sri Lanka and Debt Securities fully guaranteed by Government of Sri Lanka	1. Most recent average buying price quoted by primary market dealers provided in the weekly economic indicators published by the Central Bank of Sri Lanka. 2. If the most recent market price in not available, the estimated realizable value.
(b) Debt securities	Most recent published buying price certified and issued by the issuer or guarantor
(c) Ordinary shares of company	Valuation as per the average closing market price as per the last published closing price on the Colombo Stock Exchange
(d) Corporate debt	If quoted – valuation as per the average closing market price as per the last published closing price on the Colombo Stock Exchange If unquoted – valuation methodology based on the SLFRS 9 and SLFRS 13, aligned to the methodology as certified by the External Auditor
(e) Asset backed securities	As for other corporate debt above
(f) Interest bearing deposits	Value of the deposit including accrued interest
(g) Other cash and cash equivalents	Actual amount
(h) Freehold land and buildings	Realisable value, based on an estimate by a qualified property valuer approved by the Commission

(i) Long term leasehold land and building	Realisable value, based on an estimate by a qualified property valuer approved by the Commission and the value as certified by the External Auditor
(j) Investments in related parties	If quoted - valuation as per the average closing market price as per the last published closing price on the Colombo Stock Exchange If unquoted - net realisable value, taking into account the prevailing interest rate scenario and expected cash flows from the investment.
(k) Unlisted equity and corporate debt – held in shareholders' funds	Estimated realisable value
(l) Unrated corporate debt - held in shareholders' funds	Estimated realisable value
(m) Unit trusts and mutual funds	Most recent manager's buying price quoted by the unit trust or mutual fund
(n) Gold kept in safe custody in a bank	Lower of market price and estimated realisable value
(o) Net amounts receivable from reinsurers/co-insurers	Net amount receivable after deducting the provision for bad and doubtful debts
(p) Outstanding policy loans	Net realisable value
(q) Premium outstanding	Actual amount
(r) Mortgage loans on immovable property	Estimated realisable value

Part V

Valuation of Liabilities

21. (1) For the purpose of calculating CAR, insurers shall value insurance liabilities on a market consistent basis in accordance with the provisions of this Part.

(2) Every Insurer shall value non-insurance liabilities in accordance with Sri Lanka Accounting Standards.

22. (1) Every insurer shall value long term insurance liabilities using the following formula ;

Long term insurance liability = best estimate (BE) long term liability + risk margin for adverse deviation (RM)

(2) Every insurer shall value general insurance liabilities using the following formula:

General insurance liability = claims liability + premiums liability

Where claims liability (CL) = BE claims liability + RM claims liability

Where premium liability (PL) = Max {UPR, [BE (URR) + RM(URR)]}, and

Where UPR means unearned premium reserve and URR means unexpired risk reserve.

Option 2: Where premium liability (PL) = (Combined Ratio – Acquisition expense ratio)*UPR + (Combined ratio – 1)*Present value of future premiums arising from within contract boundaries + RM, and

Where UPR means unearned premium reserve.

23. (1) Subject to the provisions of this Part, the BE liability is the present value of all future BE cash flows calculated using the risk-free interest rate yield curve required by rule 33.

(2) Subject to provisions of paragraph (3), insurers shall calculate the BE liability using a discounted cash flow approach covering all the cash in and out flows required to settle the obligations under in-force policies.

(3) Every long-term insurer shall use a discounted cash flow approach equivalent to gross premium valuation methodology to calculate the liabilities of :

i. non-participating policies ;

ii. participating policies; and

iii. the non-unit linked liabilities of unit linked long term policies

24. Subject to the provisions of rule 25, relevant future cash flows include :

a. future premiums, charges and fees

b. administrative expenses, investment management expenses, commission expenses and claims management expenses ;

c. claims payments ; and

d. for long term policies, benefits payments including death, survival, critical illness and disability benefits, and benefits payable on lapse, surrender, premium discontinuance, or other contingency – including all guaranteed and non-guaranteed future discretionary benefits;

25. In determining the BE of the present value of future pre-tax cash flows, insurers shall exclude :

a. income tax payments and receipts ;

b. cash flows arising from future policies ; and

c. investment returns from current or future investments except returns related to long term policies linked to the performance including unit linked long term policies, universal life policies, and participating policies, where future investment returns may affect the benefits payable to policyholders.

26. All relevant cash flows for in-force policies that are reasonably likely to occur after the valuation date shall be included on a prospective basis.

27. Every insurer shall value liabilities on a policy by policy (seriatim) basis but, to the extent that this is not reasonably possible, insurers may use reasonable approximations or groupings of data.

28. (1) Every insurer shall calculate liabilities gross and net of reinsurance as well as co-insurance.

(2) For the purpose of determining liabilities, both gross and net of reinsurance and co-insurance, relevant future cash flows shall also be determined on a gross and net basis.

(3) Every insurer may use reasonable approximations of the impact of non-proportional reinsurance arrangements on the BE liabilities and RMs.

29. Every insurer shall use, in order to calculate the BE liabilities, appropriate actuarial and statistical techniques (such as analytical techniques, deterministic techniques, and simulation methods) to determine the mean of possible outcome, taking into account all relevant information about the insurer's business.

30. (1) Every insurer shall calculate the cash flows used to determine the BE liabilities on the basis of reasonable, supportable, and explicit BE assumptions to estimate the mean of possible outcomes.

(2) BE assumptions shall:

a. be made using judgment and be based on experience ;

b. take into account relevant statistical and other information ; and

c. be neither overstated nor understated.

(3) Every insurer shall use, subject to the provisions of paragraph (4), their own experience as the starting point in determining BE assumptions for future experience.

(4) If their experience is not sufficiently credible, such insurers shall use appropriate industry data, data from reinsurers, population statistics, or the assumptions used in a recent business planning exercise, to set suitable BE assumptions.

(5) Unless the nature of the liability is sufficiently simple, such insurers shall make appropriate adjustments to their BE assumptions to take into account the extent to which variations in the assumptions may be correlated with, or may influence, each other in adverse circumstances so that the BE liability reflects the mean of the distribution of potential liability outcomes.

(6) Without prejudice to the provisions of rules 31(4) and 34(4), insurers shall review all BE assumptions on a regular basis and revise them, if appropriate, before the next valuation date.

31. (1) Every insurer shall use, in order to project future cash flows to determine BE liabilities, reasonable BE assumptions for non-market risks and other inputs, including :

a. mortality and morbidity ;

b. policy discontinuances, lapses and surrenders ; and

c. expenses and expense inflation

(2) Positive or negative correlations between two or more non-market inputs shall be reflected in the calculation of the BE liabilities in a consistent manner.

(3) For disability benefits, BE assumptions shall be made for mortality and recovery rates, as well as for disability incidence rates ;

(4) Every insurer shall review the BE assumptions related to lapses and surrenders at least once annually and revise them to reflect their most recent experience, if appropriate, before the next valuation date.

(5) Every insurer must set assumptions for future crediting rates used in the calculation of policy liabilities, in line with the board-approved crediting rate policy for its universal life business.

(6) Every insurer must set assumptions for future bonus rates used in the calculation of policy liabilities, in line with the board approved bonus policy for the participating business. Bonus rates used for the valuation of participating policies shall be supportable and consistent with the risk-free interest rate yield curve under Rule 33.

Note: As a transitionary measure, insurers are allowed to comply with these provisions within three years from the date of implementation of the Rules.

32. (1) Subject to the provisions of paragraph (3), in calculating the BE liabilities, every insurer shall take into account the effect of any non-linear or asymmetrical distribution of outcomes by using an appropriate method to simulate the probability distribution.

(2) Subject to the provisions of paragraph (3), if a non-liner or an asymmetrical distribution has a significant effect on the value of the cash-flows, for example in the case of policies that contain embedded options and guarantees, every insurer shall take into account the asymmetrical distribution of liability outcomes using a simulation method to calculate the BE liability as the mean of an appropriately simulated probability distribution.

(3) If such policies represent less than 5% of the total insurance liabilities, with the approval of the Commission, insurers may use a deterministic method.

33. (1) Subject to the provisions of paragraph (2), every insurer shall use a risk-free interest rate yield curve to discount liability cash flows, as published by the Commission.

(2) Every insurer may, with the approval of the Commission, use a risk-free interest rate yield curve developed using an appropriate mathematical model and consistent with current Sri Lankan Government bond rates.

(3) If the Commission has not approved an interest rate curve under paragraph (2), such insurer shall use the current risk-free interest rate yield curve published by the Commission.

(4) During periods of extreme economic volatility, the market data-based derivation of risk-free interest rate yield curve may not be reliable for solvency assessment. In such event, the Commission shall consult the insurers to collectively review and analyze the approach for overall evaluation of solvency (including derivation of risk-free interest rate yield curve, asset valuation etc.).

34. (1) In determining BE assumptions for mortality and morbidity risks, unless the Commission has required the use of specified mortality or morbidity tables, long term insurers may use standard industry mortality and morbidity tables, adjusted by a suitable multiplier wherever appropriate and to remove any implicit margins.

(2) Subject to the provisions of paragraph (3), the multiplier shall be based on the insurer's recent experience, comparing actual to expected mortality and morbidity.

(3) If an insurer does not have sufficient experience, the insurer shall use industry data, data from reinsurers, population statistics, or the assumptions used in a recent business planning exercise, to set suitable BE assumptions.

(4) Every insurer shall review the BE assumptions related to mortality and morbidity at least once every three years and revise them to reflect the most recent experience before the next valuation date.

35. (1) Every insurer shall determine the non-unit linked liabilities of unit linked long term policies by projecting the non-unit linked and linked future cash flows to determine if the insurance fund will be sufficient to meet future obligations and, if not, shall increase the liability value to eliminate the deficit.

(2) The non-unit linked cash flows shall be discounted using the interest rate yield curve required by rule 33.

(3) When the growth of a unit linked long term fund leads to a cash inflow, insurers shall determine the cash flows by adjusting the fund growth rate assumptions (allowing for an appropriate RM) in calculating the future cash flow.

(4) The fund growth rate assumption shall be consistent with the fund experience provided by the fund manager

36. (1) Where the calculated mathematical reserve in respect of a policy is negative, a Reserve Floor Adjustment equal to the amount of the negative reserve shall be made, ensuring that the reserve held is not less than zero - at a level of granularity deemed fit by the Actuary.

(2) If the surrender value of a policy is higher than the sum of the BE liability and the RM, the value of the BE liability may not be increased to the surrender value of the policy.

37. (1) Every insurer shall identify all options and guarantees under long term policies and the value of the policy liability shall include an amount to cover the liabilities which may result from the exercise of the options and guarantees.

(2) Every insurer shall use, subject to the provisions of paragraph (3), (4), and (5), a stochastic method to ensure the sufficiency of such policy liabilities at a **65%/75%** confidence interval for general insurance business and at a **75%/85%** confidence interval for long-term insurance business.

(3) The BE liability of policies with embedded options or guarantees may be valued using closed-form option pricing formulas or using an approach such as risk-neutral valuation.

(4) Subjects to the provisions of paragraph (5), for long term policies with embedded options or guarantees, where a significant proportion of the total uncertainty arises from only one or a small number of risks, the remaining risks making an proportionately smaller contribution, insurers may use a valuation technique that combines a simulation approach for the primary risks along with a deterministic approach for the secondary risks.

(5) Where the BE liability for policies with options or guarantees is expected to be less than 5% of the total long term insurance liabilities or where the options and guarantees are simple and short term, with the approval of the Commission, insurers may use a deterministic method.

38. Every insurer shall include in valuing long term insurance liabilities, appropriate determinations and values ; for

a. the immediate payment of claims ;

b. in the case of limited payment policies and paid-up policies, future expenses and bonuses;

c. existing liabilities or expected future liabilities under policies that have lapsed ;

d. disability benefits in payment ;

e. policies kept in force where the premiums have been waived ;

f. future benefits in the event of a life insured's disability or future waivers of premiums ;

g. policies covering a substandard risk or a high-risk occupation ; and

h. any other liability or contingent liability under a long-term policy not already listed

39. Every general insurer shall, using the methodology in Table 3 to calculate the UPR and the BE of URR, calculate the premiums liability for each sub-class of general insurance business using the following formula;

Premium Liability (PL) = Max {UPR, [BE (URR) + RM (URR)]}

Option 2: Premium Liability (PL) = (Combined Ratio – Acquisition expense ratio)*UPR + (Combined ratio – 1)*Present value of future premiums arising from within contract boundaries + RM *[Risk margin calculated as per option 2, as explained in Part VI shall be included in this option]*

Table 3: Calculation methodology for UPR and URR

Factor	Category	Valuation methodology
UPR	All general insurance policies except reinsurance policies	Premium adjusted for accounted commissions paid to intermediaries, not exceeding the commission required by the Commission For policies with a term of one year, an appropriate time apportionment method no less accurate than the 1/24th method ; for policies with a term longer or shorter than one year, a method that assumes a uniform spread of premiums during each month of the term of the policy
	All reinsurance policies	An appropriate time apportionment method no less accurate than the 1/8th method
BE (URR)	All policies	BE of expected future claims payments arising from future events, for risks assumed as at the valuation date, including an allowance for expected expenses incurred to settle claims, including overheads in administering the policies and settling the claims, and allowing for expected premium refunds.

40. (1) Every insurer shall calculate the claims liability for each sub-class of general insurance business using the following formula ;

Claims Liability (CL) = BE (Claims Liability) + Risk Margin (Claims Liability)

(2) In calculating the CL, insurers shall take into account all future payments related to claims incurred as at the valuation date, including claims incurred but not reported, claims outstanding, and expected direct and indirect claims related expenses such as investigation fees, loss adjustment fees, legal fees, medical fees, labour costs, and internal administrative costs.

(3) The BE of the CL shall reflect the statistical mean of the underlying distribution of the relevant insurance risks.

41. (1) Where policy administration expenses have not been included in the date used for determining insurance liabilities, general insurers shall make a separate provision for such expenses.

(2) When determining the BE of the CL and PL, general insurers shall make an appropriate allowance for future claims escalations caused by wage or price increases, court-awarded interest, or other environmental or economic causes.

(3) If the effect of the discounting is material and appropriate, insurers may calculate the CL and PL and on a discounted basis using the risks free interest rate yield curve required by rule 33.

Part VI

Determination of RM

42. (1) Every long term insurer shall determine a RM so that the sum of the BE liability and the RM represents a **75% or 85%** confidence interval with respect to the underlying probability distribution of the possible outcomes.

(2) Every general insurer shall determine a RM so that the sum of the BE liability and the RM represents a **65% or 75%** confidence interval with respect to the underlying probability distribution of the possible outcomes.

(3) In determining the RM, insurers shall take into account the impact of the provisions of the insurer's reinsurance contracts (such as retention limits or quota share percentages) and co-insurance contracts on the determination of the present value of reinsurance/ co-insurance recoverable under the stress scenarios or on the application of the RM factors to the BE liabilities.

43. (1) If an insurer has sufficiently credible experience, with the approval of the Commission, the insurer may use an internal model to determine appropriate RMs so that the sum of the BE liability and the RM achieves the required **75% or 85%** confidence interval for long term insurance and **65% or 75%** confidence interval for general insurance.

(2) The RMs determined using an internal model may apply at the product level rather than to each sub-class and, if an insurer has sufficiently credible experience to determine such an assumption, the model may include an assumption for risk diversification.

(3) As at each valuation date, insurers shall be able to demonstrate that the sum of the BE liability and RM in each case achieves the **75% or 85%** confidence interval for long term insurance and **65% or 75%** confidence interval for general insurance.

44. (1) If the Commission has not approved an internal model under rule 43, long term insurers shall use the default approach specified in this paragraph.

(2) Risk margin for long term insurers will be calculated as **75th or 85th** percentile of the normal distribution characterized by:

a. A mean equal to the best-estimate liability, net of reinsurance for long-term insurance, calculated subject to provisions of Part V – Valuation of Liabilities; and

b. A 99.5% percentile equal to the liability risk capital charge for long-term insurance, calculated subject to provisions of rule 61 of Part VII – Determination of Risk Capital Required (RCR).

45. (1) If the Commission has not approved an internal model under rule 43, general insurers shall use the default RMs specified in Table 5.

(2) The RMs for the URR and CL shall be calculated by multiplying the BE liability by the relevant RM factor in Table 5.

(3) When the RMs are calculated using Table 5, no additional credit for diversification may be taken.

Table 5: Default RMs for general insurance liabilities

Business category	URR RM as % of BE	CL RM as % of BE
A. High volatility		
Liability insurance (such as public, product, employers, Professional Indemnity)	19%	16%
Aviation and marine hull		
Other liability (except motor)		
B. Medium volatility		
Cargo	14%	12%
Engineering		
Motor Liability		
Workers' compensation		
C. Low volatility		
Fire	10%	8%
Motor damage or loss		
Personal accident		
Health		
Other (non-liability)		

[Option-2] - the risk margin for general insurers shall be calculated as 65th or 75th percentile of the normal distribution characterized by:

a. A mean equal to best-estimate liability, net of reinsurance for general insurance, calculated subject to provisions of Part V – Valuation of Liabilities; and

b. A 99.5% percentile equal to the liability risk capital charge for general insurance, calculated subject to provisions of Rule 60 of Part VII – Determination of Risk Capital Required (RCR).

Part VII

Determination of Risk Capital Required (RCR)

46. (1) Subject to the provisions of paragraph (2), every insurer shall make the calculations required in this Part for each risk charge, applied to the total of insurance funds and shareholders' funds, then add the resulting amounts to arrive at the total RCR, using the following formulas:

a. for general insurance business :

RCR = $\sqrt{[(\text{credit risk capital charge} + \text{concentration risk capital charge} + \text{reinsurance risk capital charge} + \text{market risk capital charge})^2 + \text{liability risk capital charge}^2 + \text{operational risk capital charge}^2 + \text{catastrophe risk capital charge}^2]}$; and

b. for long term insurance business :

RCR = $\sqrt{[(\text{credit risk capital charge} + \text{concentration risk capital charge} + \text{reinsurance risk capital charge} + \text{market risk capital charge})^2 + \text{liability risk capital charge}^2 + \text{operational risk capital charge}^2 + \text{catastrophe risk capital charge}^2]}$

(2) Except for operational risk under rule 62, risk charge does not apply to assets required to be deducted from TAC under rule 12.

(3) Subject to provisions of paragraph 54 (1) for long term insurance business, an insurer can take credit of change in the liability cashflows for future discretionary benefits in calculation of interest rate risk capital charge. The overall reduction in RCR driven by revision of future discretionary benefits should be limited to the extent of present value of all future discretionary benefits allowed in the calculation of base liabilities.

47. (1) As required in paragraph (2) and (3), every insurer shall determine a credit risk capital charge by adding together each credit risk exposure multiplied by the credit risk factor, for that exposure, the credit risk exposure being the market consistent value of the financial instrument.

(2) Every insurer shall apply subject to the provisions of rule 48, apply the credit risk capital factors specified in Column 2 of Table 6 to the market consistent value of the related fixed income assets in the categories of admissible asset listed in Column 1 of Table 6, except investment in related parties (to which rule 56 applies).

(3) Every Insurer shall :

a. use the most recent credit rating for each counterparty or financial instrument, as the case may be, assigned by a credit rating agency falling within rule 16(2)(A) or (B); or

b. treat the asset as unrated.

Table 6: Credit Risk Capital Factors for Fixed Income Assets

Category of asset	Risk capital factor	
Government securities issued by Central Bank of Sri Lanka and Debt Securities / Deposits fully guaranteed by Government of Sri Lanka		0%
AAA rated debt securities issued or fully guaranteed by a foreign Government or a Central Bank of a foreign country		0%
Debt securities issued or fully guaranteed by a foreign government or a central bank of a foreign country (except AAA rated debt securities above)		
	Above AA-	1.6%
	A+ to A-	4.0%
	BBB + to BB-	8.0%
	Below BB-	12.0%
Corporate debt including bonds, debentures, commercial papers, and similar financial instruments and asset backed securities (except debt instruments with a term of less than 1 year)		
	AAA to AA-	1.6%
	A+ to A-	4.0%
	BBB + to BB-	8.0%
	Below BB-	12.0%
	Unrated	16.0%
Corporate debt with a term of less than 1 year		
	A1/P1	1.6%
	A2/P2	4.0%
	A3/P3	8.0%

Category of asset	Risk capital factor	
	Unrated	12.0%
Deposits with a licensed commercial bank or licensed specialised bank, or a licensed finance company		
	AAA to AA-	1.6%
	A+ to A-	4.0%
	BBB + to BB-	8.0%
	Below BB-	12.0%
Other admissible assets		
	Cash and cash equivalents	0%
	Policy loans	0%
	Premium outstanding	0%
	Mortgage secured by residential property	2.8%
	Mortgages secured by commercial property	8.0%

48. (1) Every insurer may, subject to the provisions of paragraph (2), apply a lower credit risk capital factor to a debt (except mortgage debt and debt to which a risk factor of 0% already applies) if the debt is guaranteed by a recognized guarantor (a risk mitigation instrument)

    (2) If an insurer holds a risk mitigation instrument, the insurer may :

    a. apply the risk factor applicable to the guarantor or 1.6%, whichever is higher, to the portion of the debt that is guaranteed; and

    b. apply the risk factor applicable to the issuer to the portion of the debt that is not guaranteed.

    (3) Every insurer may apply a lower credit risk capital factor on credit risk exposure under Green, Social and Sustainable bonds listed a stock exchange. For such bonds, the credit risk capital factor associated with corporate bonds of an equivalent rating shall be reduced by a haircut which will be assessed as part of the QIS.

49. Every insurer shall:

    a. apply a concentration risk capital factor of 100% to the value of the assets that are not admissible assets and that are not required to be deducted from TAC under rule 13; and

    b. aggregate the resulting amounts to form the concentration risk capital charge.

50. (1) Every insurer shall calculate a reinsurance and co-insurance risk capital charge for each reinsurance/co-insurance counterparty using the following formula:

    Reinsurance and Co-insurance risk capital charge = Reinsurance / Co-insurance risk exposure x Counterparty credit risk factor; where the reinsurance risk exposure the sum of :

    a. admissible amounts due from the reinsurance/co-insurance counterparty, including claims recoverable and ceding commissions.

    b. Reinsurance/co-insurance recoveries in respect of claims incurred including ceded claims liabilities;

c. for long term insurance business, the difference between the value of the gross liabilities and the net liabilities of the insurer in respect of its participating policies, non-participating policies, and unit linked long term policies due to reinsurance ceded to the reinsurer; and

d. for general insurance business, the difference between the gross premiums **and claims** liability and the net premiums and claims liability of the insurer due to reinsurance/co-insurance ceded to the reinsurer and co-insurance arrangement.

e. Amount of reinsurance credit taken in the calculation of catastrophe risk capital for both life and general insurance business.

(2) The counterparty credit risk capital factors are specified in Table 7, except that, in the case of reinsurance ceded to the National Insurance Trust Fund Board of Sri Lanka the credit risk capital factor is 0%.

(3) Every insurer shall aggregate the risk capital charges calculated for each reinsurance and co-insurance counterparty to form the reinsurance and coinsurance risk capital charge.

Table 7: Reinsurance / co-insurance credit risk factors

Credit rating of reinsurer (rated by a credit rating agency listed in Part A of the Schedule)	Risk factor
AAA to AA -	1.6%
A+ to A -	4.0%
BBB + to BB -	8.0%
Below BB -	12.0%
Unrated	16.0%

51. For long term insurance business, every insurer shall calculate a catastrophe risk capital charge using the following approach:

a. Value of change in liabilities by applying an additive mortality stress of 0.15% p.a. on the mortality rate for the next 12 months from the valuation date i.e. an absolute increase of 0.15% in the annual mortality rate over the next 12 months from the valuation date.

b. 20% increase (multiplicative) in best estimate morbidity/disability rates in the first 12 months from the valuation date for products and riders exposed to the pandemic risk

c. An insurer shall apply catastrophe risk capital charge only on products exposed to mortality / morbidity risk.

d. An insurer can consider the effect of reinsurance, including any catastrophe reinsurance, wherever applicable provided there is no double counting of the effect of the reinsurance contract. If catastrophe reinsurance treaty excludes select catastrophe events (for which the underlying insurer is liable to policyholders), the Appointed Actuary should justify the rationale of treatment of such reinsurance cover in calculation of catastrophe risk capital charge and seek appropriate clarifications from the Commission.

e. The value of catastrophe risk capital charge, net of reinsurance shall be floored to zero.

52. For general insurance business,

a. Natural perils – floods: Risk capital for flood peril for business written within Sri Lanka shall be calculated using either of below methods:

i. Insurers can use an internally developed catastrophe model, by taking the difference between the 99.5th percentile and the mean of the total annual net losses derived from the catastrophe model. Such a model should be approved by the Actuary of the insurer and submitted to the Commission for approval.

ii. Apply factor of 0.05% with the net sum insured/covered for products that are exposed to flood peril.

b. Natural perils – others: Risk capital for natural catastrophe perils shall be calculated by multiplying the below factors for each peril with the maximum amount of gross loss covered by a licensed person over a one-year period (net of reinsurance)

Peril	Factor
Earthquake	5.0%
Windstorm	2.0%
Other perils (including flood peril in relation to business outside Sri Lanka)	1.0%

The calculation of catastrophe risk capital charge for man-made perils shall be determined using the following approach (based on the specific exposure):

c. Man-made perils – Terrorism: Risk charge is calculated as total net loss of property; including building, motor or any other property or insurance contracts arising from loss of property. This is assessed via scenario testing of five-tonne bomb blast for the largest geographical risk concentration partly or fully located within a radius of 500 metres. For property damage, including insured properties and related covers, the following assumptions are made:

i. 100% damage ratio within a circular zone of a 200-metre radius;

ii. 25% damage ratio for the next circular zone up to a 400-metre radius; and

iii. 10% damage ratio between 400 and 500 metres.

For disabilities, the following assumptions are made:

i. 20% disability rate within a circular zone of a 200-metre radius; and

ii. 10% fatality rate between 200 and 500 metres.

d. Man-made perils – Mortgage insurance: Risk capital is determined as aggregate net loss amount resulting from an increase in frequency and severity due to 25% decline in home prices, assumed to persist for one-year time period. The total loss amount includes the impact of both an increase in frequency of delinquency and defaults and an increased loss severity that results from the decline in home prices.

e. Man-made perils – Trade credit: The trade credit coverage indemnifies the policyholder for bad debt losses incurred due to a customer's inability to pay. Risk capital amount for this risk is based on total net loss due to policyholder's inability to pay, indicated by both an increase in both the probability of default and the loss given default. This is calculated based on aggregate net earned premium for trade credit, split by external credit rating category: investment grade vs. non-investment grade. Credit stress factor of 80% is applied on investment grade and 200% is applied on non-investment grade.

f. Man-made perils – Surety: A surety bond indemnifies the policyholder from the principal's inability to perform its contractual obligation. The risk capital is defined as a total net potential loss amount based on the penal sum of the surety bond. Net potential loss amount for a principal is calculated using the gross exposure of the principal. Loss severity model 95% probable maximum loss (PML) is applied to the gross exposure. The loss amount is

then adjusted for any co-surety arrangements, acceptable cash collateral and any reinsurance arrangements. Such calculations are performed on the largest net potential losses for its ten largest exposures to surety counterparties, with the capital amount based on the amount of two largest net losses.

All catastrophe scenarios are aggregated as follows:

$$\textit{Risk Capital}_{Cat} = \sqrt{RC^2_{Nat\ Cat} + RC^2_{Terror} + RC^2_{Pandemic} + RC^2_{Credit\ and\ Surety}}$$

g. The value of catastrophe risk capital charge, net of reinsurance shall be floored to zero.

53. Every insurer shall determine a market risk capital charge as follows:

Market risk capital charge = Interest rate risk charge + Credit spread risk charge + Equity risk charge + property risk charge + Gold risk charge + Unit trust and mutual fund risk charge, calculated in accordance with rules 54 to 59.

54. (1) Subject to the provisions of paragraphs (4) and (5), insurers shall calculate the interest rate risk charge as follows:

a. compute the present value of the net liabilities and the interest rate sensitive asset exposures under the base scenario, referred to as V0 and A0, respectively, where (in the manner required by paragraph 23 of Part V) V0 is the value of the insurance liabilities, which excludes RM and is discounted using the risk-free interest rate yield curve;

b. re-compute the present value of the net liabilities and the interest rate sensitive asset exposures under the increasing interest rate scenario, referred as to V1 and A1, respectively;

c. recompute the present value of the net liabilities and the interest rate sensitive asset exposures under the decreasing interest rate scenario, referred to as V2 and A2, respectively;

d. Insurers can re-calculate liabilities cashflows underlying discretionary future benefits, under increasing and decreasing interest rate scenario, to the extent of:

i. change in the liability cashflows for universal life and non-unit component of unit linked products to the extent of change in the underlying crediting rate and unit fund growth assumption respectively under the interest rate scenario.

ii. change in liability cashflows for the participating business to the extent of expected change in the future discretionary benefits under different interest rate scenarios.

e. compute the value of the surplus under each scenario as the difference between the present value of the assets and liabilities; and

f. determine the reduction in surplus under the increasing and decreasing interest rate scenarios

(2) Subject to the provisions of paragraph (3), the interest rate risk charge is the greater of the reduction in surplus under the increasing and decreasing interest rate scenarios.

(3) If there is an increase in surplus under both shock scenarios, then the risk charge is zero.

(4) Cash flows for assets that are not sensitive to interest rates, such as floating rate bonds, and equities are not included in the calculation of the interest rate risk charge.

(5) Subject to the provisions of paragraph (6) and (7) a standard up-shock and down- Shock methodology shall be applied to the risk-free interest rate yield curve to arrive at the increasing and decreasing interest rate scenarios.

(6) The shocked term structures shall be derived by multiplying the risk-free interest rate yield curve till last liquid point by $(1+S_{up})$ and $(1-S_{down})$, where the upward stress factors $S_{up}(t)$ and the downward stress factors $S_{down}(t)$ are those specified for each maturity "t" in Table 8. The factors in Table 8 shall be used only for the market derived yields and UFR.

(7) Stressed risk-free interest rate yield curves between last liquid point and convergence point shall be derived using the Smith Wilson approach with parameters used for deriving base curve.

(8) For the purpose of calculating the present value of interest rate–sensitive asset exposures under (a), (b), and (c) above, for asset cashflows representing "debt securities issued or fully guaranteed by a foreign government or by the central bank of a foreign country, provided such instruments carry an investment grade rating", the present value shall be determined using the expected risk-free interest rate yield curve for the respective currency, as pragmatically determined by the Appointed Actuary.

Table 8: Risk free interest rate curve shock factors

Maturity t (years)	Shock up(t) factor	Shock down(t) factor
0.25	70%	75%
0.5	70%	75%
1	70%	75%
2	70%	65%
3	64%	56%
4	59%	50%
5	55%	46%
6	52%	42%
7	49%	39%
8	47%	36%
9	44%	33%
10	42%	31%
11	39%	30%
12	37%	29%
13	35%	28%
14	34%	28%
15	33%	27%
16	31%	28%
17	30%	28%
18	29%	28%
19	27%	29%
20	26%	29%
21	26%	29%
22	26%	30%
23	26%	30%

Maturity t (years)	Shock up(t) factor	Shock down(t) factor
24	26%	30%
25 – 29	26%	30%
30 and above	25%	30%
UFR	10%	10%

Factors for terms to maturity greater than LLP shall be ignored and shall be referred to in case of change in the LLP only.

55. (1) Every insurer shall determine a credit spread risk charge for interest rate sensitive assets that are also subject to credit risk as follows:

(2) Subject to the provisions of paragraph (7) every insurer shall first determine an average credit spread in excess of the risk-free interest rates for the interest rate sensitive and credit risk bearing assets, taken together, by weighting the current yields on the assets in proportion to their value as at the valuation date.

(3) Every insurer shall then determine a “risky” yield curve by adding the average credit spread determined under paragraph (2) to the risk-free interest rate yield curve required by rule 33.

(4) Every insurer shall then calculate the differences between the present value of the net liability cash flows and the present value of the cash flows for interest rate sensitive assets, under an increasing interest rate scenario and under a decreasing interest rate scenario, where the cash flows for the credit risk bearing assets are discounted using the “risky” yield curve, and the cash flows for the liabilities and the non -credit risk bearing assets are discounted using the risk free interest rate yield curve.

(5) The increasing and decreasing rate scenarios shall be determined by shocking the “risky” yield using implied shock factors derived from the stresses applied on the base curve.

(6) The credit spread risk amount is the greater of the reduction in surplus under the increasing and decreasing rate scenarios.

(7) Alternatively, every insurer may calculate the present value of the asset cash flows for the credit risk bearing assets by determining the credit spread for each asset separately and, for each asset, using the above method, determining a risky yield curve, shocking it to determine the increasing and decreasing rate scenarios, discounting the cash flows, and adding the resulting amounts.

(8) The credit spread risk charge is the higher of zero and the difference between the interest rate risk charge calculated under rule 54 and the total of the credit spread risk amounts.

56. (1) Every insurer shall calculate an equity risk charge by applying the equity risk factors to the value of the admissible assets as specified in Table 9 and aggregating the resulting amounts.

(2) Investments in related parties shall be treated as equity investments for the purpose of calculating the equity risk charge

Table 9: Equity risk factors

Category of equity investment	Shock factor
Shares listed on a licensed stock exchange	35%
Investments in related parties listed on a licensed stock exchange	35%
Unlisted private equity	45%

57. (1) Every insurer shall calculate a property risk charge applicable to admissible assets whose value is sensitive to the volatility of market prices of property.

(2) For the purpose of paragraph (1), the following assets shall be treated as property:

a. land, buildings, and other immovable property rights; and

b. direct or indirect participations in real estate companies that generate periodic income from property holdings,

unless the asset is subject to a risk charge under another rule, except rule 62 (operational risk capital charge)

(3) Every insurer shall apply a property risk factor of 25% to the value of property and aggregate the resulting amounts to form the property risk charge.

(4) Every insurer shall apply a property risk factor of 30% to the realisable value of leasehold land and building constructed on leasehold land by the lessee under a long-term lease agreement, if such asset is considered admissible.

58. Every insurer shall apply a gold risk factor of 15% to the total value of their admissible gold assets to determine the gold risk charge.

59. (1) Every insurer shall apply the risk factors to the underlying assets of the fund, or part fund, as specified in Table 10, for admissible mutual funds and unit trusts.

(2) The value of the underlying assets shall be determined as at the valuation date based on the market values provided by the fund manager.

(3) Every insurer shall aggregate the resulting amounts for each unit trust and mutual fund to form the unit trust and mutual fund risk charge.

Table 10: Risk factors for unit trusts and mutual funds

Asset category	Risk factor
Government securities and Debt Securities/Deposits guaranteed by Government	0.0%
Money market instruments, including cash	1.6%
Ordinary shares	35.0%
Debt Securities & corporate debt	4.0%
Property (as defined in rule 57)	25.0%
Other	15.0%

60. (1) General insurers shall calculate a liability risk capital charge by aggregating the risk charges for claims liability and premiums liability as follows.

(2) Every general insurer shall determine premiums liability risk charges for each sub-class of general insurance business separately, using the following formula:

Premium liability risk charge = Max [0, (URR X premium liability risk charge) – 50%* (Premium liability – URR)]; where

URR = BE (URR) + RM (URR); net of reinsurance

Premium liability risk charge is determined based on risk factor specified in column 2 of Table 11

(3) Every general insurer shall determine claims liability risk charges for each sub-class of general insurance business, separately, by multiplying the net claims liability by the corresponding claims liability risk factor specified in column 3 of Table 11.

Table 11: Risk factors for premiums liability and claims liability risk charges

Business category	Premiums liability risk factor	Claims liability risk factor
A. High volatility		
Liability insurance (such as public, product, employers, Professional Indemnity)	36%	30%
Aviation and marine hull		
Other liability (except motor)		
B. Medium volatility		
Cargo	30%	25%
Engineering		
Motor Liability		
Workers' compensation		
C. Low volatility		
Fire	24%	20%
Motor damage or loss		
Personal accident		
Health		
Other (non-liability)		

Option 2:

General insurers shall calculate a liability risk capital charge by aggregating the risk charges for claims liability and premiums liability as follows:

a. **Every general insurer shall determine premiums liability risk charges for each sub-class of general insurance business, by multiplying the corresponding premium liability risk factor by higher of**:

   i. **Net earned premium – Premium net of ceded reinsurance, earned in the latest one year preceding valuation date.**

   ii. **Net premium to be earned: Premium net of ceded reinsurance to be earned in next one year post valuation date, including such premium from business already written and business expected to be written by insurer**

   iii. **Net written premium – Premium net of ceded reinsurance, earned in the latest one year preceding valuation date. If net earned premium is not reported by insurer, net written premium shall be used as proxy. If net earned premium is reported, then this item shall not be used.**

b. Every general insurer shall determine claims liability risk charges for each sub-class of general insurance business, separately, by multiplying the net claims liability by the corresponding claims liability risk factor.

c. Risk charges applicable to premium and claims liability are as follows:

Business segment	Category	Premium risk factor	Claims risk factor
Motor	Motor-like	35%	25%
Property damage	Property-like	35%	30%
Accident, protection & health	Other	35%	30%
Short tail medical expenses	Other	35%	25%
Other short tail	Other	35%	30%
Marine, Air, Transport (MAT)	Property-like	35%	35%
Workers' compensation	Liability-like	45%	36%
Public liability	Liability-like	45%	36%
Product liability	Liability-like	45%	47%
Professional indemnity	Liability-like	45%	35%
Other liability and other long tail	Liability-like	45%	36%
Non-proportional motor, property damage, APH and MAT	Property-like	50%	45%
Catastrophe reinsurance	Property-like	50%	45%
Non proportional liability	Liability-like	50%	48%
Non-proportional professional indemnity	Liability-like	50%	45%
Mortgage insurance	Mortgage	50%	40%
Commercial credit insurance	Credit	50%	40%
Other medium term	Other	55%	40%

Note: Definition of each business segment has been provided in Part VIII

d. Diversification benefit shall be applied at the below level, to determine overall liability risk capital charge:

i. **25% correlation factor is applied between the premium and claims liability risk charges for all sub-classes of general insurance business.**

ii. **Mortgage and credit business is excluded to aggregate with property risk and credit risk respectively.**

iii. **Second layer of diversification is applied across segments of a given category:**

Categories	Correlation factor between segments within the category
Liability-like	50%
Motor-like	75%
Property-like	50%
Others	25%

iv. **Third layer of diversification is applied using 50% correlation factor between categories: liability-like, motor-like, property-like and others.**

61. (1) An insurer shall calculate liability risk capital charge for long term insurance business by aggregating the risk capital for each of the following sub-risks using correlation matrix as specified in paragraph (7):

    a. Mortality risk

    b. Longevity risk

    c. Morbidity risk

    d. Lapse risk

    e. Expense risk

    (2) Subject to the provisions of paragraphs (3), (4), (5), (6) and (7), long term insurers shall calculate risk capital charges as the higher of:

    a. Difference between the Net Asset Value under the base and stressed scenario. Net Asset Value shall be calculated as the difference between value of asset and value of liability (excluding risk margin); or

    b. Zero

    (3) For the purposes of paragraph (2), an insurer must determine value of liability for long term insurance business in the following manner:

    a. For participating and non-participating business, including universal life business, insurer must determine the liability in the same manner in which liability (net of reinsurance) is determined in accordance with Part V of the Rules;

    b. For unit-linked policy, the value of liability shall exclude unit fund value.

    (4) Risk capital assessment and direction of onerousness for lapse risk shall be assessed at

    a. Product level; or

    b. Homogenous risk group (HRG) level. HRG encompasses a collection of policies with similar risk characteristics, which remain stable over time; and have similar underwriting policies, claims patterns, risk profiles, product features, future management actions. HRG shall include a minimum of participating, non-participating endowment, non-participating term, universal life, unit-linked, annuity, and health business.

    (5) An insurer shall calculate risk capital for each sub-risk (excluding lapse risk) as:

Risk category	Stress factor
Mortality	12.5% increase in the best estimate mortality rate for policies exposed to mortality risk
Longevity	17.5% decrease in the best estimate mortality rate for policies exposed to longevity risk
Morbidity	*Refer to table below*

Expense	8% increase in the best estimate expense assumption Absolute increase of 3% in year 1 to 10, 2% for year 11 to 20 and 1% thereafter from the valuation date in expense inflation

For determination of risk capital under morbidity stress, risks were categorised as below,

	Medical expenses	Lump-sum in case of health event	Short term recurring payment	Long-term recurring payment
Categorisation	Providing fixed or reimbursable compensation for medical expenses	Single payment at the occurrence of a specified health event/accidence causing disability.	Recurring compensation for a period based on time spent in a given temporary health status	Fixed annuity in case of long-term/permanently deteriorated health status
Indicative product examples [provided for reference during QIS]	Medical expense / supplemental medical contracts providing benefits for practitioner fees, medication fees, vision and dental expenses etc.	Accident, critical illness, and permanent disability policies that provide a lump sum payment on occurrence of a claim, accidental death and dismemberment policies.	Hospital indemnity, personal accident / loss of income policy, short-term disability income protection (generally in the context of group insurance).	Personal or group policies for permanent disability and long-term care
Stress factor – short term*	20%	25%	20%	Inception rate + 25% Recovery rate – 20%
Stress factor – long term*	8%	20%	12%	Inception rate: +20% Recovery rate: -20%
Calculation approach	Where benefits modelled using inception rates/recovery rates, stress is applied to inception rates (if only recovery rates modelled, decrease in recovery rate assumed). Where no explicit inception rates/recovery rates, stress directly applied to medical claim payment amounts.			Maximum of inception rate risk charge or recovery rate risk charge.

**Short term contracts refer to contracts with policy term of upto 5 years. Long term contracts refer to contracts with term longer than 5 years.*

(6) Risk capital for lapse risk shall be calculated at the level as defined in paragraph (4), as the maximum reduction in NAV after applying following shock factors:

a. Reduction in NAV after applying a shock of increase of 50% to the best estimate lapse rates,

b. Reduction in NAV after applying a shock of decrease of 50% to the best estimate lapse rates,

c. Reduction in NAV after applying a mass lapse stress as an instantaneous increase as at valuation date, in the best estimate surrender rates by an additive stress of 30% for individual business and 50% increase for group business, subject to a maximum of 100% stress.

d. zero

(7) Liability risk capital charge for long term insurers shall be aggregated using the below correlation matrix, where, life risk capital would be calculated as:

$$\sqrt{\sum_{m,n} correlation\ matrix_{m,n} * risk\ capital\ amount_m * risk\ capital\ amount_n}$$

Where m, n represents corresponding sub risks in the above correlation matrix.

	Mortality	Longevity	Morbidity	Lapse	Expense
Mortality	100%	-25%	25%	0%	25%
Longevity	-25%	100%	0%	25%	25%
Morbidity	25%	0%	100%	0%	50%
Lapse	0%	25%	0	100%	50%
Expense	25%	25%	50%	50%	100%

62. Every insurer shall calculate an operational risk capital charge of 1% of the value of all assets of the insurer, whether admissible or not, and whether held inside or outside an insurance fund or shareholders' fund, including assets by reference to the value of which linked long term liabilities are to be determined.

63. Every insurer shall calculate an additional risk capital for all additional risks they are exposed to adequately reflect the full range of risks to which they are exposed. Insurers must ensure that the level of capital held is commensurate with the nature, scale, and complexity of their business and risk profile, even where explicit methodologies are not prescribed.

64. Every insurer may, with the approval of the Commission, use an alternative method for calculation of the risk capital charge, provided that the method is robust, appropriately reflects the insurer's risk exposure, is based on sound actuarial and risk management principles, and results in a level of capital that is not lower than that required under the standard approach.

Part VIII

General

65. Unless the context otherwise requires:

"RII Act" means the Regulation of Insurance Industry Act, No. 43 of 2000

"asset backed securities" means securities that are primarily serviced by cash flows from a discrete pool of receivables or other financial assets, either fixed or revolving, that by their terms convert into cash within a definite period, with any rights or other assets designed to ensure the servicing or timely distribution of proceeds to the security holders;

"BE" means best estimate;

"Commission" means the Insurance Regulatory Commission of Sri Lanka established under section 2 of the RII Act;

"Capital adequacy ratio" means the capital adequacy ratio of an insurer, that is, the ratio of TAC to RCR expressed as a percentage.

“CL” means the claims liability;

“co-insurer” means any insurance company registered and licensed under the RII Act

“company” means a company incorporated under the Companies Act, No. 7 of 2007;

“Future discretionary benefits” means any non-guaranteed amount payable to policyholders which is linked to contractual or legal obligations of the insurers to distribute a portion of the insurer’s investment or underwriting profit;

“inadmissible assets” means the assets which are not admissible;

“licensed finance company” means a company licensed under Finance Business Act, No. 42 of 2011, to carry on finance business within the meaning of that Act;

“licensed specialised bank” means an institution licensed as a specialised bank under the Banking Act, No. 30 of 1988;

“Long term insurance fund” means the insurance fund maintained under section 38 of the RII Act;

“MCR” means the minimum capital required by rule 4;

“market consistent valuation” means a valuation of assets or liabilities at marked value (‘mark to market’) or, where a market value cannot reasonably be ascertained, a valuation using ‘mark to model’ approach;

“multilateral agency” means the International Finance Corporation or other similar institution approved by the Commission

“mutual fund” means a professionally managed and regulated open-ended collective investment vehicle (that is not a hedge fund or unit trust) that pools money from many investors to purchase securities;

“NAV” means the net asset value calculated as the difference between the value of assets and the best-estimate value of liabilities, net of reinsurance (excluding risk-margin);

“PL” means the premiums liability;

“RCR” means the total amount of risk capital charges, valued and determined in accordance with these Rules; “RCAR” means the CAR required by rule 3;

“recognised guarantor” means the Government of Sri Lanka, the Central Bank of Sri Lanka, the central Bank of a foreign country carrying an investment grade rating, a multilateral agency, or an institution carrying an investment grade rating approved by the Commission;

“related party” shall have the same meaning as in the Sri Lanka Accounting Standards;

“RM” means risk margin for adverse deviation;

“shareholders’ funds” means:

issued and fully paid ordinary share capital;

share premium arising out of (a), and

reserves with retained profits attributable to shareholders (except non-distributable or restricted reserves);

"Sri Lanka Accounting Standards" means the accounting standards adopted under the Sri Lanka Accounting and Auditing standards Act, No. 15 of 1995, which comprise Accounting Standards prefixed both SLFRS and LKAS (SLFRS refers to Sri Lanka Accounting Standards corresponding to IFRS (International Financial Reporting Standards) and LKAS refers to Sri Lanka Accounting Standards corresponding to IAS (International Accounting Standards):

"Total available capital" (TAC) means the total available capital held by an insurer, valued and determined in accordance with rules 10 to 14, available to cover RCR and MCR;

"Tier 1 capital" means permanent capital that is fully available to cover the losses of an insurer at all times on both a going concern and a winding up basis, as specified in rule 11;

"Tier 2 capital" means capital that lacks some of the absorbency characteristics of the Tier 1 capital, but nevertheless provides some loss absorbency during ongoing operations or on winding up as specified in rule 12;

"unit trust" means a unit trust within the meaning of the Securities and Exchange Commission of Sri Lanka Act, No. 19 of 2021, managed by a company licensed under that Act, or a unit trust outside Sri Lanka approved by the Commission;

"UPR" means the unearned premium reserve; and "URR" means the unexpired risk reserve.

66. Definition of business segments under general insurance business is as follows:

Category	Definition
Motor	This includes: Motor property damage: Damage to own and third-party motor vehicles (and related property damage) through accident, theft, fire and weather events, excluding liability for personal injury; and Motor bodily insurances: Insurances relating to the injury or death of third parties due to or related to motor vehicles and accidents involving them. This may also extend to include the driver involved.
Property Damage	This includes, but is not limited to: 1. Property: Insurance of house or other property (including house contents) against loss through fire, windstorm etc., insurance of contents against losses due to theft, fire, windstorm, earthquake, impact, damages, water damage, and other natural and man-made perils. Contents insurances may extend to loss or damage to property outside the home or its usual location. 2. Fire and industrial: Loss or damage and loss of earnings due to damage to commercial buildings and other physical infrastructure due to fire, windstorm and other perils. 3. Consequential losses: Products covering consequential losses (such as 'loss of profits' or 'business interruption') is also included in this segment; 4 Construction: This includes 'construction all risks and erection all risks' (CAR/EAR) or similar written in connection with construction projects. This includes the construction and erection of infrastructure projects and buildings.

Accident, protection and Health	This includes, but is not limited to: 1 Accident and sickness: Accident cover provides benefits if an accident results in bodily injury or death. Benefits are lump sum or periodic (typically for at most 2 years). Sickness cover is often an extension of accident insurance; 2 Other consumer accident: Property damage other than householders or motor vehicle. For example, travel insurance. 3. Other commercial accident: Commercial property insurance other than Fire and Industrial risk and MAT, and other than commercial long-term liability; 4 Consumer credit: Guarantee of repayments on consumer credit contracts due to involuntary loss of employment; 5. Consumer liability: Private individual's liability for personal injury through personal actions or property
Short tail medical expenses	Insurance obligation that covers the provision or financial compensation for medical treatment or care including preventive or curative medical treatment or care due to illness, accident, disability or infirmity usually made during the term of the policy or shortly (typically, up to 1 year) after the coverage period of the insurance has expired.
Other short tail	Any non-Life products which do not fit into the segments above, do not fit the definition of non-life medium-term business and where claims are usually made during the term of the policy or shortly (typically, up to 1 year) up to after the coverage period of the insurance has expired.
Marine, Air, Transport	This includes: 1. All damage or loss of river, canal, lake and sea vessels, aircraft, goods in transit, liabilities from use of aircraft, ships and boats.; 2 Loss or damage to property, consequential third-party liability for damages to the property of others, and consequential third-party liability for personal injury to operators, passengers and other.
Workers Compensation	This insurance covers compensation payments to employees who sustained bodily injury or occupational disease during, or which arises out of the course of their employment.
Public liability	Public liability insurance for bodily injury or damage to property.
Product liability	Product liability insurance for bodily injury or damage to property for claims attributed to the use of products.
Professional indemnity	Professional indemnity for a professional person or organisation for claims for losses legal and other) attributed to professional negligence (and related) in the services provided. For example, medical malpractice and directors and officers' insurance products
Other liability and other long-tail	Any non-life products which do not fit into the defined segments above, do not fit the definition of non-life medium-term business and where claims may be made many years (typically 1 or more years) after the coverage period of the insurance has expired. All other liability classes not covered elsewhere.
Non-proportional motor, property damage, APH and MAT	Non-Proportional reinsurance of motor, property damage and accident/ protection/health business, marine, aviation and transport (refer definition).
Catastrophe reinsurance	Catastrophe Reinsurance is an inwards reinsurance line of business providing excess of loss protection or proportional protection in respect of aggregate losses arising from a single event or a combination of events. Typically, such business is covering damages to property and is sold with an 'hours' clause and provides protection against natural catastrophe perils such as windstorms, earthquakes and man-made catastrophe such as acts of terrorism.
Mortgage insurance	Indemnity to credit providers for losses due to the failure of a borrower to repay a loan secured by a mortgage over property.

Commercial credit insurance	Indemnity for financial losses due to the failure of a commercial entity to repay outstanding credit contracts or failure to perform contracted services or deliver contracted products other than short-term trade credit and suretyship insurance.
Other medium term	Any other non-life medium-term insurance products other than the above and not included in non-life insurance segments above. This includes, but is not limited to: Financing or monetising Insurance linked securities (ILS, for example catastrophe bonds). For example, embedded Value/Present Value of Future Profit securitisations, ILS with financial risk as material trigger condition.

67. The Solvency Margin (Risked Based Capital) Rules, 2015 issued in respect of Long term Insurance and General Insurance are rescinded with effect from **[date of implementation]**.

SCHEDULE

Part A

Credit rating agency	Minimum international rating of entity or security	Minimum international rating of short term (less than one year) security
(1) Moody's Investor Services	Baa 3	P3
(2) Standard and Poor's Corp	BBB-	A3
(3) Fitch Ratings	BBB-	F3
(4) A. M. Best Company	bbb-	AMB - 3

Part B

Credit rating agency	Minimum rating of entity or security	Minimum rating of short term (less than one year) security
(1) Fitch Ratings (Lanka) Ltd	BBB-(lka)	F3 (lka)

Appendix A: Template for QIS

Insurers are required to undertake QIS via the attached response template. Any person submitting comments on behalf of any organization is requested to provide details of the organization they represent.