

**Draft Legislation**  
**to implement the proposals in the**  
**Consultation Paper on a Solvency Framework for Long-term Insurance**  
**August 2010**

**1. Insurance Amendment (No. 4) Act 2010**

- primarily introduces proposed license classifications for long-term insurers

**2. Insurance Accounts Amendment (No. 3) Regulations**

- introduces revisions to the balance sheet for long-term insurers that are required to calculate the proposed capital requirements

**3. Insurance Returns and Solvency Amendment Regulation 2010**

- primarily introduces proposed minimum solvency margins for long-term insurers

**4. Insurance Prudential Standards (Class E Solvency Requirement) Order 2010**

- primarily introduces proposals on Enhanced Capital Requirements (ECR) and Commercial Insurer Solvency Self Assessment (CISSA) requirements for Class E insurers

**A BILL  
entitled  
INSURANCE AMENDMENT (NO. 4) ACT 2010**

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WHEREAS it is expedient to amend the Insurance Act 1978, and to make consequential amendments;

Be it enacted by The Queen's Most Excellent Majesty, by and with the advice and consent of the Senate and the House of Assembly of Bermuda, and by the authority of the same, as follows:

**Citation**

1. This Act may be cited as the Insurance Amendment (No. 4) Act 2010.

**Interpretation**

2. In this Act, the "principal Act" means the Insurance Act 1978.

**Amends section 1**

3. Section 1(1) of the principal Act is amended -
  - (a) by inserting the following definition after the definition of "capital and solvency return" -  
"Class A, Class B, Class C, Class D and class E in relation to an insurer carrying a long-term business, and the class of the insurer's registration under section 4."
  - (b) by deleting the definition of "long term insurer".

**Amends section 4**

4. Section 4 of the principal Act is amended—
  - (a) by repealing subsection (1)(b) and substituting the following—  
“(b) as a class A, class B, class C, class D or class E insurer where it proposes to carry on long term business;
  - (b) in subsection (1)(c) by deleting “long-term insurer” and substituting “Class A, Class B, Class C, Class D or Class E insurer”;
  - (c) in subsection (6)(b) by deleting “long-term insurer” and substituting “Class A, Class B, Class C, Class D or Class E insurer”;

- (d) in subsection (6)(c) by deleting “long-term insurer” and substituting “Class A, Class B, Class C, Class D or Class E insurer”.
- (e) by inserting after Section 4E—

**“Determination of class of registration for long-term business**

4EA (1) Subject to subsection (2), the Authority shall determine whether a body corporate proposing to carry on long-term business shall be registered as a Class A, Class B, Class C, Class D or Class E insurer in relation to its long-term business in accordance with sections 4EB to 4EF.

(2) But a body corporate may be registered as a particular class of insurer where it would not be so registrable under sections 4EB to 4EF if, after taking into account—

- (a) the nature of the intended relationship between the body corporate and its intended policy-holders, the interests of those policy-holders and of the public generally, and
- (b) the level of regulation which is applicable to the different classes of insurers carrying on long-term business the Authority considers it appropriate, whether or not on an application made to it for that purpose by the body corporate.

(3) An application under this section shall be in such form, shall contain such information and shall be accompanied by such documents as the Authority may require.

**Class A insurer**

4EB A body corporate is registrable as a Class A insurer where that body corporate—

- (a) is wholly owned by one person and intends to carry on long-term business consisting only of insuring the risks of that person; or
- (b) is an affiliate of a group and intends to carry on long-term business consisting only of insuring the risks of any other affiliates of that group or of its own shareholders.

**Class B insurer**

4EC (1) A body corporate is registrable as a Class B insurer where that body corporate is wholly owned by two or more unrelated persons and intends to carry on long-term business not less than 80% of the net premiums written in respect of which will be written for the purpose of—

- (a) insuring the risks of any of those persons or of any affiliates of any of those persons; or
- (b) insuring risks which, in the opinion of the Authority, arise out of the business or operations of those persons or any affiliates of any of those persons.

(2) A body corporate is registrable as a Class B insurer where that body corporate would be registrable as a Class A insurer but for the fact that—

- (a) not all of the business which it intends to carry on, but at least 80% of the net premiums written, will consist of the long-term business described in paragraph (a) or (b) of section [4E]; or
- (b) it intends to carry on long-term insurance business not less than 80% of the net premiums written in respect of which will, in the opinion of the Authority, arise out of the business or operations of the

person by whom it is owned or any of the affiliates of that person.

**Class C insurer**

4ED A body corporate is registrable as a Class C insurer where that body corporate has total assets of less than \$250 million and is not registrable as a Class A or Class B insurer.

**Class D insurer**

4EE A body corporate is registrable as a Class D insurer where that corporate body has total assets of \$250 million or more, but less than \$500 million and is not registrable as a Class A or Class B insurer.

**Class E insurer**

4EF A body corporate is registrable as a Class E insurer where that corporate body has total assets of more than \$500 million and is not registrable as a Class A or Class B insurer.”

**Amends section 4F**

5. Section 4F of the principal Act is amended-

(a) by inserting in its alphabetical order the following definition—

““total assets” means the total assets reported on an insurer’s balance sheet in the relevant year less the amount held in a segregated account.”

(b) by inserting the following subsection after (2)—

“(3) In determining the total assets of an insurer falling within classes A to E, account shall be had to the total assets reported on the insurer’s balance sheet in the relevant year less the amount held in a segregated account.

“(4) In subsection (3), “designated account” has the meaning given in section 2 (1) of the Segregated Accounts Act 2000.”

**Amends section 6**

6. Section 6 of the principal Act is amended—

(a) by repealing and replacing subsection (1) with the following—

**“Further registration requirements**

6 (1) The Authority shall not register a body corporate as a Class 1, Class 2, Class 3 or Class 3A insurer, Special Purpose Insurer or Class A, Class B, Class C or Class D insurer under section 4 unless the Authority is satisfied that the body corporate meets the minimum margin of solvency.”

(b) by repealing subsection (2) and;

(c) by inserting after subsection (3) the following—

“(4) The Authority shall not register a body corporate as a Class 3B, Class 4, or Class E insurer under section 4 unless it is satisfied that the amount of the available statutory capital and surplus of the body corporate, on the date of registration, meets—

(a) its minimum margin of solvency; and

(b) its enhanced capital requirement.

(5) Notwithstanding subsection (4), the Authority may register a body corporate as a Class 4 or Class E insurer if it is satisfied that the amount of the available statutory capital and surplus of the body corporate will meet the

requirements of subsection (4)(a) and (b) on the date when the body corporate commences business as a Class 4 or as a Class E insurer.

(6) The Authority may make rules for the purposes of calculating the available statutory capital and surplus of a body corporate or an insurer.

(7) The rules may make different provisions for different classes of insurers.

(8) Section 6A(5), (6) and (7) and section 6B apply to rules made under subsection (6) as they apply to an Order made under section 6A.

(9) In this section “minimum margin of solvency” means the prescribed amount by which the value of the assets of a body corporate exceeds the amount of its liabilities.”

**Amends section 7**

7. Section 7(1) of the principal Act is amended—

- (a) by repealing paragraphs (b) and (c);
- (b) by substituting the following paragraphs after paragraph (f)—
  - (g) as a Class A insurer is \$120,000
  - (h) as a Class B insurer is \$250,000
  - (i) as a Class C, D or E insurer is \$1,000,000
  - (j) as an insurer registered in two [or more] classes, the aggregate amount of share capital of all the classes for which it is registered.”.

**Amends section 14**

8. Section 14 (4) of the principal Act is amended by deleting “or Class 4 insurer” and substituting “Class 4, Class C, Class D or Class E insurer”.

**Amends section 17**

9. Section 17 (4) of the principal Act is amended -

- (a) in paragraph (a) by deleting “or Class 2 insurer (which is not also a long term insurer)” and substituting “Class 2, Class A or Class B insurer”; and
- (b) in paragraph (b) by deleting “or Class 4 insurer, a long-term insurer” and substituting “Class 4, Class C, Class D or Class E insurer”.

**Amends Section 31A**

10. Section 31A of the principal Act is amended in subsection (1) by inserting “and a Class E insurer which at anytime fails to meet its minimum margin of solvency” before “shall”.

**Transitional**

11. (1) Every insurer registered under the principal Act as a long term insurer immediately before the commencement of this Act that qualifies for registration as a Class A, Class B, Class C, Class D or Class E insurer respectively under sections 4EB, 4EC, 4ED, 4EE and 4EF of the principal Act as amended by this Act, shall make application to the Authority before 30 September 2011 for re-classification as a Class A, Class B, Class C, Class D, or, as the case may be, Class E insurer under the principal Act as amended by this Act.

(2) An application under subsection (1) shall be in such form as the Authority may determine, and shall be accompanied with an application fee —

- (a) of \$500.00 in the case of a Class A, B, insurer; and
- (b) of \$1,000.00 in the case of a Class C, D, E insurer.

(3) Subject to subsection (4), an insurer falling within subsection (1) shall, during the transitional period, continue to be registered as a long term insurer and be subject to the provisions of the principal Act applicable to an insurer of that class.

(4) The Authority may cancel the registration of every insurer falling within subsection (1) that fails to make application for re-classification before 30 September 2011.

(5) In this section “transitional period” means the period beginning with the commencement of this section and ending on 31 December 2011.

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**THE INSURANCE ACT 1978**

**1978 : 39**

**INSURANCE ACCOUNTS AMENDMENT (No 3) REGULATIONS  
2010**

ARRANGEMENT OF SECTIONS

- 1 Short title and commencement
- 2 Interpretation
- 3 Schedule I amended

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The Minister of Finance, in exercise of the power conferred by section 53 of the Insurance Act 1978, makes the following Regulations:

**Citation and commencement**

1 (1) These Regulations may be cited as the Insurance Accounts Amendment (No 3) Regulations 2010.

(2) These Regulations shall be deemed to have come into operation on [ ].

**Interpretation**

2 In these Regulations “principal Regulations” means the Insurance Accounts Regulations 1980.

**Schedule I to principal Regulations amended**

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Schedule I to the principal Regulations is amended in Form 4

(a) in statement line 2 by deleting assets mentioned in (b), (c) and (d) and substituting the following assets -

“(b) Equities

(i) Common Stocks	XXX	XXX
(ii) Preferred Stocks	XXX	XXX
(iii) Mutual Funds	<u>XXX</u>	<u>XXX</u>
(c) Total Equity Investments	<u>XXX</u>	<u>XXX</u>
(d) Other Quoted Investments	<u>XXX</u>	<u>XXX</u>
(e) Total Quoted Investments	<u>XXX</u>	<u>XXX</u> ”

(b) in statement line 3 by deleting assets mentioned in (b) and (c) and substituting the following assets -

“(b) Equities

(i) Common Stocks	XXX	XXX
(ii) Preferred Stocks	XXX	XXX
(iii) Mutual Funds	<u>XXX</u>	<u>XXX</u>
(c) Total Equity Investments	<u>XXX</u>	<u>XXX</u>
(d) Other Unquoted Investments	<u>XXX</u>	<u>XXX</u>
(e) Total Unquoted Investments	<u>XXX</u>	<u>XXX</u> ”



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**THE INSURANCE ACT 1978**

**2010 : 39**

**INSURANCE RETURNS AND SOLVENCY AMENDMENT  
REGULATIONS 2010**

ARRANGEMENT OF REGULATIONS

- |   |                           |   |                    |
|---|---------------------------|---|--------------------|
| 1 | Citation and commencement | 5 | Schedule III added |
| 2 | Interpretation            |   |                    |
| 3 | Regulation 9 amended      |   |                    |
| 4 | Regulation 12 amended     |   |                    |

In exercise of the powers conferred upon the Ministry of Finance by section 53 of the Insurance Act 1978, the following Regulations are made -

**Citation and commencement**

1. These Regulations may be cited as the Insurance Returns and Solvency Amendment Regulations 2010 and shall come into operation on December 31, 2011.

**Interpretation**

2. In these Regulations, "principal Regulations" means the Insurance Returns and Solvency Regulations 1980.

**Regulation 9 amended**

3. Regulation 9 (2) of the principal Regulations is amended by deleting in subparagraph (e) "(b)".

**Regulation 12 amended**

5. Regulation 12 of the principal Regulations is amended by deleting subparagraph (1) and substituting the following -

"(1) For the purposes of section 6 (1) of the Act, the prescribed amount by which the value of the long-term business assets of a long-term insurer must exceed its long term business liabilities is the amount calculated in relation to the relevant class of long-term insurer under Schedule III Long Term Business Solvency Margin."

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**SCHEDULE III                      (Reg. 12 (1))**

**LONG TERM BUSINESS SOLVENCY MARGIN**

<b><u>Class</u></b>	<b><u>Minimum Solvency Margin</u></b>
<b>A</b>	greater of \$ 120,000 or 2.5% of assets
<b>B</b>	greater of \$ 250,000 or 2.5% of assets
<b>C</b>	greater of \$ 1,000,000 or 2.5% of assets
<b>D</b>	greater of \$ 5,000,000 or 2.5% of assets
<b>E</b>	greater of \$10,000,000 or 2.5% of assets

where assets shall be based upon the amount reported by a long-term insurer in Line 15 less the amount in Line 13(b) of Form 4 of the Statutory Balance Sheet submitted by a long-term insurer as part of its previous year's statutory financial return.

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**THE INSURANCE ACT 1978**

**1978 : 39**

**INSURANCE PRUDENTIAL STANDARDS (CLASS E SOLVENCY  
REQUIREMENT) ORDER 2010**

In exercise of the powers conferred upon the Bermuda Monetary Authority by section 6A of the Insurance Act 1978, the following Order is made—

**Citation and commencement**

1. This Order may be cited as the Insurance (Prudential Standards) (Class E Long-Term Insurer Solvency Requirement) Order 2010 and shall come into operation on the 31<sup>st</sup> day of December 2011.

**Interpretation**

2. In this Order—

“Act” means the Insurance Act 1978;

“accident and health insurance” means an insurance that pays a benefit or benefits in the event of the insured incurring a insured injury, illness or infirmity.

“annuity” or “annuities” means an insurance that provides savings or income benefits during the lifetime of the insured or some limited period thereafter.

“approved internal capital model” means a model approved under paragraph 5;

“available statutory capital and surplus” has the meaning given in section 1(1) of the Act;

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“BSCR model” means the Bermuda Solvency Capital Requirement model established in accordance with paragraph 4 and Schedule I;

“business continuity risk” includes a risk of an event that threatens or disrupts an insurer’s continuous operations;

“business processes risk” includes a risk of errors arising from data entry, data processing, or application design;

“compliance risk” includes a risk of legal or regulatory breaches or both;

“concentration risk” means the risk of exposure to losses associated with inadequate diversification of portfolios of assets or obligations.

“credit risk” includes the risk of loss arising from an insurer’s inability to collect funds from debtors.

“critical illness insurance” means a form of accident and health insurance that pays a benefit if the insured incurs a predefined major illness or injury.

“deferred annuity” means an insurance that provides benefits at a future date which may be fixed deferred annuities where specified amounts are payable or variable annuities where the benefits are dependent on the performance of an investment fund or funds.

“disability income insurance” means an accident and health insurance that pays a benefit for a fixed period of time during disability.

“distribution channel risk” includes a risk of disruption to an insurer’s distribution channel arising from employment of inexperienced or incapable brokers or agents;

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“ECR” means the enhanced capital requirement within the meaning of section 1(1) of the Act;

“Form 4” means the Form 4 established in the Insurance Accounts Regulations 1980;

“fraud risk” includes a risk of misappropriation of assets, information theft, forgery or fraudulent claims;

“group life, health and disability insurance” means insurance that is issued to insureds through a group arrangement such as through an employer or association.

“group risk” means any risk of any kind, arising from membership of a group.

“human resources (‘HR’) risk” includes a risk of employment of unethical staff, inexperienced or incapable staff, failure to train or retain experienced staff, and failure to adequately communicate with staff;

“information technology (‘IT’) risk” includes a risk of unauthorized access to systems and data, data loss, utility disruptions, software and hardware failures, and inability to access information systems;

“insurance risk” means the risk of fluctuations or deterioration in the experience factors affecting the cost of benefits payable to policyholders or impacting upon the amounts held to provide for policyholder obligations

“interest risk” means the risk that asset values are adversely affected by changes in current interest rates.

“legal risk” means the risk arising from (a) an insurer’s failure to comply with statutory or regulatory obligations; or (b) failure to comply with its bye-laws; or (c) failure to comply with any contractual agreement.

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“life insurance” including term insurance, whole life insurance and universal life insurance means insurance of risks on the mortality (risk of death) of the life insured.

“liquidity risk” means the risk that the realizable value of assets may be insufficient to meet the insurer’s obligations to policyholders at a point in time or an insurer’s inability to meet such obligations except at excessive cost.

“longevity risk” means the risk of fluctuations or improvements in mortality that cause benefits on payout annuities to be paid for longer than expected

“market risk” means the risk arising from fluctuations in values of, or income from, assets or in interest rates or exchange rates.

“morbidity risk” means the risk of fluctuations or deterioration of morbidity experience causing increased claims on accident and health insurance coverages.

“mortality risk” means the risk of fluctuations or deterioration of mortality experience causing increased claims on life insurance coverages.

“non-proportional insurance” means coverage that does not relate specifically to individual claims risks. Stop Loss protection is a form of non-proportional insurance that provides benefits if total claims experience exceeds a predefined level.

“operational risk” means the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events, including legal risk.

“outsourcing risk” includes a risk of mis-communication of responsibilities in relation to outsourcing, breach of outsource service agreements or entering into inappropriate outsource service agreements;

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“payout annuity” including “contingent annuity” and “pension block” means an insurance that provides a series of payments to annuitant(s) during their lifetime and/or for a fixed benefit period.

“reputational risk” includes risk of adverse publicity regarding an insurer’s business practices and associations.

“relevant year” in relation to an insurer, means its financial year;  
“Tail Value-at-Risk” means the conditional average potential given that the loss outcome exceeds a given threshold.

“strategic risk” means the risk of an insurer’s inability to implement appropriate business plans and strategies, make decisions, allocate resources, or adapt to changes in the business environment.

“variable annuity guarantees” means insurance that provides a minimum investment performance guarantee on variable annuities. Should the investment funds fail to perform at the minimum guaranteed level, insurance benefits become payable to the insured. Liabilities for the investment component of variable annuities are held in segregated accounts. Reserves for variable annuity guarantees are reported in annuity reserves.

**ECR**

3. (1) An insurer’s ECR shall be calculated at the end of its relevant year by reference to the following–

- (a) the BSCR model; or
- (b) an approved internal capital model,

provided that the ECR shall at all times be an amount equal to, or exceeding, the minimum margin of solvency (within the meaning of section 6 of the Act).

(2) The ECR applicable to an insurer shall be the ECR as calculated–

- (a) at the end of its most recent relevant year; or

- 
- (b) where its ECR has been adjusted under section 6D and has not otherwise been suspended under section 44A(4) of the Act,

whichever is later.

(3) Every Class E Long-term insurer shall maintain available statutory capital and surplus to an amount that is equal to or exceeds the value of the ECR.

**BSCR model**

4. Schedule I (which establishes the BSCR) has effect.

**Approved internal capital model**

5. (1) A Class E long-term insurer may apply to the Authority for approval to use an internal capital model in substitution for the BSCR model (“approved internal capital model”).

(2) Where the Authority is satisfied, having regard to subparagraph (3) that it is appropriate to do so, it may approve the internal capital model and may make its approval subject to conditions.

(3) In considering an application for approval of an internal capital model the Authority shall have regard to the following matters–

- (a) the appropriateness of the internal capital model for the determination of the insurer’s capital requirement;
- (b) the extent to which the internal capital model has been integrated into the insurer’s risk management program; and
- (c) the appropriateness of controls applicable to the creation and maintenance of the insurer’s internal capital model.

(4) The Authority shall serve notice on the insurer of the following matters–

- (a) its decision to approve its internal capital model; or
- (b) its decision to not approve its internal capital model and the reason for its decision.

(5) An insurer served with a notice under subparagraph (4)(b) may, within a period of 28 days from the date of the notice, make written representations to the Authority; and where such representations have been made, the Authority shall take them into account in deciding whether to confirm its decision not to approve its internal capital model.

(6) The Authority may revoke the approval given under subparagraph (2) if satisfied that the insurer has breached a condition of the approval.

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(7) The Authority shall serve notice to the insurer of its proposal to revoke its approval of the insurer's internal capital model and the reasons for its proposal.

(8) An insurer served with a notice under subparagraph (7) may, within a period of 28 days from the date of the notice, make written representations to the Authority; and where such representations have been made, the Authority shall take them into account in deciding whether to revoke its approval.

**Capital and solvency return**

6. (1) Schedules II, III, IV, and V have effect.

(2) Every Class E long-term insurer shall make a capital and solvency return to the Authority in accordance with Schedules I, II, III, IV and V;

(2A) A capital and solvency return shall comprise the following –

(a) both an electronic version and a printed version of the BSCR model;

(b) printed versions of the returns prescribed in Schedules II, III, IV and V; and

(c) where applicable, a printed copy of an approved internal capital model.

(3) An insurer shall, on or before its filing date, furnish the Authority with its capital and solvency return.

(4) An insurer shall keep a copy of its capital and solvency return at its principal office for a period of five years beginning with its filing date, and shall produce it to the Authority if so directed by it on or before a date specified in the direction.

(5) In this paragraph, "filing date" has the meaning given in section 17(4) of the Act.

**Declaration of capital and solvency returns**

7 Every capital and solvency return made by an insurer under paragraph 6 shall be accompanied with a declaration signed by two directors of the insurer and by the insurer's principal representative declaring that to the best of their knowledge and belief, the return fairly represents the financial condition of the insurer in all material respects.

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**Offences**

8 Every person who knowingly or recklessly makes a false or misleading statement or return to the Authority shall be guilty of a summary offence and liable on conviction to a fine up to \$50,000.

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**SCHEDULE I****(Paragraph 4)****Bermuda Solvency Capital Requirement**

1. The BSCR shall be established in accordance with the following formula-

$$BSCR = \sqrt{C_{fi}^2 + C_{eq}^2 + C_{LTint}^2 + (C_{LTmort} + C_{LTnp} + C_{LTtr})^2 + C_{LTmorb}^2 + C_{LTlong}^2 + C_{LTVa}^2 + C_{LTOTH}^2 + C_{LTcred}^2} + Cop$$

where-

$C_{fi}$  = fixed income investment risk charge as calculated in accordance with paragraph 2;

$C_{eq}$  = equity investment risk charge as calculated in accordance with paragraph 3;

$C_{LTint}$  = long-term interest rate and liquidity risk charge as calculated in accordance with paragraph 4;

$C_{LTmort}$  = long-term insurance risk - mortality charge as calculated in accordance with paragraph 5;

$C_{LTnp}$  = long-term insurance risk - non-proportional charge as calculated in accordance with paragraph 6;

$C_{LTtr}$  = long-term insurance risk - riders charge as calculated in accordance with paragraph 7;

$C_{LTmorb}$  = long-term insurance risk morbidity and disability charge as calculated in accordance with paragraph 8; and

$C_{LTlong}$  = long-term insurance risk - longevity charge as calculated in accordance with paragraph 9;

$C_{LTVa}$  = long-term variable annuity guarantee risk charge as calculated in accordance with paragraph 10;

$C_{LTres}$  = long-term other insurance risk charge as calculated in accordance with paragraph 11; and

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$C_{cred}$  = credit Risk charge as calculated in accordance with paragraph 12;

$C_{op}$  = operational risk charge as calculated in accordance with paragraph 13.

2. The fixed income investment risk charge calculation shall be determined in accordance with the following formula-

$$C_{fi} = \sum_i \chi_i \times FI_{astclass}_i, \text{ where-}$$

$\chi_i$  = the capital charge factors prescribed in Table 1 for each type of  $FI_{astclass}_i$ ; and

$FI_{astclass}_i$  = value of investment in corresponding asset Class  $i$ .

**Table 1 – Capital charge factors for  $FI_{astclass}_i$**

<b>Type of fixed income investments</b>  $FI_{astclass}_i$	<b>Statement Source</b>	<b>Capital Factor</b>  $\chi_i$
Government bonds	Schedule II, Line (1)	0.3%
High investment grade bonds (AAA & AA)	Schedule II, Line (2)	0.8%
Medium investment grade bonds (A)	Schedule II, Line (3)	3.2%
Low investment grade bonds (BBB)	Schedule II, Line (4)	5.0%

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Non-investment grade bonds	Schedule II, Line (5)	26.3%
Mortgage-backed securities	Schedule II, Line (6)	10.0%
Mutual funds	Schedule II, Line (7)	15.0%
Non-rated bonds	Schedule II, Line (8)	50.0%
Mortgage loans	Form 4, Line (5c)	5.0%
Other loans	Form 4, Line (8)	5.0%
Cash and time deposits	Form 4, Line (1)	0.3%

- (a) all assets comprising bonds and debentures, loans, and other miscellaneous investments that are subject to capital charges within the fixed income investment risk charge shall be included;
- (b) all non-affiliated quoted and unquoted bonds and debentures shall be included in the fixed income investment charge; and
- (c) all bonds and debentures, loans, and other miscellaneous investments shall be reported on a basis consistent with that used for purposes of statutory financial reporting.

3. The equity investment risk charge calculation shall be established in accordance with the following formula-

$$C_{eq} = \sum_i \chi_i \times Eqastclass_i, \quad \text{where-}$$

$\chi_i$  = the capital charge factors prescribed in Table 2 for each type of *Eqastclass<sub>i</sub>*; and

$Eqastclass_i$  = value of investment in corresponding asset Class  $i$ .

**Table 2 – Capital charge factors for  $Eqastclass_i$**

<b>Type of equity investments</b>	<b>Statement Source</b>	<b>Capital Factor</b>
$Eqastclass_i$		$\chi_i$
Non-affiliated (quoted) common stocks	Form 4, Line (2b)(i)	14.4%
Non-affiliated (unquoted) common stocks	Form 4, Line (3b)(i)	14.4%
Mutual funds included in common stocks portfolio	Form 4, Lines (2b)(iii) and (3b)(iii)	14.4%
Non-affiliated (quoted) preferred stocks	Form 4, Line (2b)(ii)	14.4%
Non-affiliated (unquoted) preferred stocks	Form 4, Line (3b)(ii)	14.4%
Company-occupied real estate less: encumbrances	Form 4, Line (7a)	10.0%
Real estate investments less: encumbrances	Form 4, Line (7b)	20.0%
Other equity investments	Form 4, Lines (2d) & (3e)	20.0%

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Other tangible assets	Form 4, Lines (13) & (14)	20.0%
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- (a) all assets comprising of common stocks, preferred stocks, real estate, and other miscellaneous investments that are subject to capital charges within the equity investment risk charge shall be included;
- (b) all non-affiliated quoted and unquoted common and preferred stocks shall be included in the equity investment risk charge; and
- (c) all common and preferred stocks, real estate, and other miscellaneous investments shall be reported on a basis consistent with that used for purposes of statutory financial reporting.

4. The long-term interest rate and liquidity risk charge calculation shall be established in accordance with the following formula-

$$C_{LT\text{int}} = (duration1 \times rateshock \times reserveshare \times assets \times (100\% - ALMCredit)) + (duration2 \times rateshock \times (1 - reserveshare) \times assets)$$

, where-

*duration1* applies for business where the duration of assets and liabilities is known. *duration1* = the higher of

- (a) 1; or
- (b) the insurer's effective asset duration less the insurer's effective liability duration; or
- (c) the insurer's effective liability duration less the insurer's effective asset duration;

The statement source for *duration1* is Schedule III, line 14, column 1.

*duration2* applies for business where the duration of assets and liabilities is not known. *duration2* is equal to 2.

*rateshock* = assumed interest rate adjustment prescribed in Table 3.

*assets* = quoted and unquoted value of bonds and debentures, preferred stocks, or mortgage loans;

**Table 3 – Interest rate adjustment for *assets***

<b>Type of investments</b>	<b>Statement Source</b>	<b>200 basis point interest rate increase</b>
<i>assets</i>		<i>rateshock</i>
Bonds and debentures	Form 4, Lines (2a) and (3a)	2.0%
Preferred stocks	Form 4, Lines (2b)(ii) and (3b)(ii)	2.0%
Mortgage loans	Form 4, Line (5c)	2.0%

- (a) all assets comprising bonds and debentures, preferred stocks, and mortgage loans investments that are subject to capital charges within the interest rate / liquidity risk charge shall be included;
- (b) all quoted and unquoted non-affiliated bonds and debentures and preferred stocks shall be included in the interest rate/liquidity risk charge; and
- (c) all bonds and debentures, preferred stocks, and mortgage loans investments shall be reported on a basis consistent with that used for purposes of statutory financial reporting.

*reserveshare* is the amount of reserves with known mismatch duration divided by the total reserves. The statement source for *reserveshare* is Schedule III, line 15, column 1.

ALMCredit = the factor determined in accordance with Table 4

**Table 4 - Asset Liability Management Credit**

<b>Criterion</b>	<b>Implemented</b>	<b>Statement Source</b>	<b>Score for yes answers</b>
Has the company implemented policies on Asset Liability Management, including tolerances for deviation?	If yes, the answers to remaining questions are used, If no, the ALM Credit is zero	Schedule V Table 8G Question 6	
Have clear roles and responsibilities for the execution of the Asset Liability Management program been assigned?		Schedule V Table 8G Question 7	10%
Are Asset Liability management positions / tolerances communicated to the investment function, senior management and the board on a timely basis?		Schedule V Table 8G Question 8	10%
Have systems and procedures been established to identify, report and promptly address asset liability management deficiencies?		Schedule V Table 8G Question 9	10%

Are the Asset Liability Management policies and procedures reviewed and reapproved or revised at least annually?		Schedule V Table 8G Question 10	10%
Is the company's current Asset Liability Management position in compliance with the company's policies?		Schedule V Table 8G Question 11	10%
<b>Total</b>			XX%

5. The long-term insurance risk - mortality charge calculation shall be established in accordance with the following formula-

$$C_{LTmort} = \left[ \sum_{i>1} \alpha 1_i \times NAAR1_i \right] + \left[ \sum_{i>1} \alpha 2_i \times NAAR2_i \right]$$

where-

$\alpha 1_i$  = capital charge factor for adjustable life insurance business as prescribed in Table 5;

$NAAR1_i$  = the Net Amount at Risk of all adjustable life insurance business. The statement source is Schedule III line 1, column 5.

$\alpha 2_i$  = capital charge factor for non-adjustable business as prescribed in Table 5;

$NAAR2_i$  = the Net Amount at Risk of all non-adjustable life insurance business. The statement source is Schedule III, line 1 column 6.

**Table 5 - Capital charge factors for long-term insurance risk - mortality**

<b>Net Amount at Risk NAAR1 or NAAR2</b>	<b>Capital Factor <math>\alpha 1_i</math></b>	<b>Capital Factor <math>\alpha 2_i</math></b>
First \$1 billion	0.00199	0.00397
Next \$4 billion	0.00090	0.00180
Next \$5 billion	0.00072	0.00144
Next \$40 billion	0.00065	0.00129
Excess over \$50 billion	0.00057	0.00113

6. The long-term insurance risk – non-proportional charge calculation shall be established in accordance with the following formula-

$$C_{LTnp} = 50\% \times \text{Net Annual Premium for non-proportional insurance risks}$$

The statement source for Net Annual Premium for non-proportional risks is Schedule III, line 12, column 7.

7. The long-term insurance risk – riders charge calculation shall be established in accordance with the following formula-

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$$C_{LTr} = 25\% \times \text{Net Annual Premium for insurance product riders not included elsewhere}$$

The statement source for Net Annual Premium for insurance riders not included elsewhere is Schedule III, line 13, column 7.

8. The long-term insurance risk - morbidity and disability charge calculation shall be established in accordance with the following formula-

$$C_{LTmorb} = \text{(a) } 7.00\% \times \text{reserves for disability income claims in payment on waiver of premium and long-term care. The statement source for reserves for disability income claims in payment on waiver of premium and long-term care is Schedule III line 7, column 1.}$$

plus

(b) 10% x reserves for disability income claims in payment on other accident and sickness products. The statement source for reserves for disability income claims on other accident and sickness products is Schedule III, line 8, column 1.

plus

$$\text{(c) } \left[ \sum_{i>1} \alpha_i \times NAP_i \right]$$

where-

$\alpha_i$  = Net Annual Premium capital charge factor as prescribed in Table 6;

$NAP_i$  = the Net Annual Premium for disability income business –active lives as described in Table 6.

**Table 6 - Capital charge factors for long-term insurance risk - morbidity and disability – component (c)**

<b>Net Annual Premium</b>	<b>Statement Source</b>	<b>Capital Factor</b>
	$NAP_i$	$\alpha_i$
Benefit period less than or equal to two years, premium guarantee less than or equal to 1 year	Schedule III, line 5 (a), column 5	9.00%
Benefit period less than or equal to two years, premium guarantee of more than 1 year but less than or equal to 5 years	Schedule III, line 5 (b), column 5	15.00%
Benefit period less than or equal to two years, premium guarantee of more than 5 years	Schedule III, line 5 (c), column 5	22.50%
Benefit period greater than two years, premium guarantee less than or equal to 1 year	Schedule III, line 5 (a), column 6	12.00%
Benefit period greater than two years, premium guarantee of more than 1 year but less than or equal to 5 years	Schedule III, line 5 (b), column 6	20.00%
Benefit period greater than two years, premium guarantee of more than 5 years	Schedule III, line 5 (c), column 6	30.00%

plus

(d) 12% x net annual premiums for Disability Income active lives - other accident and sickness products. The

statement source for disability income active lives – other accident and sickness is Schedule III line 6, column 7

plus

$$(e) \left[ \sum_{i>1} \alpha 1_i \times NAAR1_i \right] + \left[ \sum_{i>1} \alpha 2_i \times NAAR2_i \right]$$

where-

$\alpha 1_i$  = Net Amount at Risk capital charge factor as prescribed in Table 7;

$NAAR1_i$  = the Net Amount at Risk of all adjustable critical illness insurance business in force. The statement source is Schedule III line 2, column 5.

$\alpha 2_i$  = Net Amount at Risk capital charge factor as prescribed in Table 7;

$NAAR2_i$  = the Net Amount at Risk of all non-adjustable critical illness insurance business in force. The statement source is Schedule III line 2, column 6.

**Table 7 - Capital charge factors for long-term insurance risk - morbidity and disability risk – component (e)**

<b>Net Amount at Risk</b>	<b>Capital Factor</b>	<b>Capital Factor</b>
<i>NAAR1 or NAAR2</i>	$\alpha 1_i$	$\alpha 2_i$
First \$1 billion	0.00596	0.01191
Next \$4 billion	0.00270	0.00540
Next \$5 billion	0.00216	0.00432
Next \$40 billion	0.00194	0.00387

Excess over \$50 billion	0.00170	0.00339
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9. The long-term insurance risk – longevity charge calculation shall be established in accordance with the following formula-

$$C_{LTlong} = 6\% \times \text{Net reserves for longevity risk. The statement source for the net reserve for longevity risk is Schedule III, line 3, column 1.}$$

10. The long-term variable annuity guarantee risk charge calculation shall be established in accordance with the following formula

$$C_{LTV A} = \sum_{i>1} (TotalBSReq_i - Res_i)$$

Where (i)  $TotalBSReq_i$  = larger of (a)  $\alpha 3_i \times AV1_i + \alpha 4_i \times AV2_i$

and (b)  $WF_i \times NAR_i$

$$(ii) WF_i = (\alpha 1_i \times AV1_i + \alpha 2_i \times AV2_i) / (AV1_i + AV2_i)$$

(iii)  $Res_i, AV1_i, AV2_i, NAR_i$  have the statement source identified in Table 8.

**Table 8 Statement Source for  $Res_i, AV1_i, AV2_i$  and  $NAR_i$**

Variable Annuity Benefit Type	Statement Source $Res_i$	Statement Source $AV1_i$	Statement Source $AV2_i$	Statement Source $NAR_i$
Guaranteed Minimum Accumulation Benefit with less than 5 years to maturity	Schedule IV, line 1, column (1)	Schedule IV, line 1, column (2)	Schedule IV, line 1, column (3)	Schedule IV, line 1, column (4)

Guaranteed Minimum Accumulation Benefit with 5 years or more to maturity	Schedule IV, line 2, column (1)	Schedule IV, line 2, column (2)	Schedule IV, line 2, column (3)	Schedule IV, line 2, column (4)
Guaranteed Minimum Death Benefit with Return of Premium, Ratchets or Resets	Schedule IV, line 3, column (1)	Schedule IV, line 3, column (2)	Schedule IV, line 3, column (3)	Schedule IV, line 3, column (4)
Guaranteed Minimum Death Benefit with Enhanced Benefits (Roll Up)	Schedule IV, line 4, column (1)	Schedule IV, line 4, column (2)	Schedule IV, line 4, column (3)	Schedule IV, line 4, column (4)
Guaranteed Minimum Income Benefit with less than 5 years to maturity	Schedule IV, line 5, column (1)	Schedule IV, line 5, column (2)	Schedule IV, line 5, column (3)	Schedule IV, line 5, column (4)
Guaranteed Minimum Income Benefit with 5 years or more to maturity	Schedule IV, line 6, column (1)	Schedule IV, line 6, column (1)	Schedule IV, line 6, column (1)	Schedule IV, line 6, column (1)
Guaranteed Minimum Withdrawal Benefit	Schedule IV, line 7, column (1)	Schedule IV, line 7, column (2)	Schedule IV, line 7, column (3)	Schedule IV, line 7, column (4)
Guaranteed Enhanced Earnings Benefit	Schedule IV, line 8, column (1)	Schedule IV, line 8, column (2)	Schedule IV, line 8, column (3)	Schedule IV, line 8, column (4)

(iv)  $\alpha 1_i, \alpha 2_i, \alpha 3_i$  and  $\alpha 4_i$  are the capital charge factors as prescribed in Table 9;

**Table 9 Factors for  $\alpha 1_i, \alpha 2_i, \alpha 3_i$  and  $\alpha 4_i$**

Variable Annuity Benefit	Weighting	Weighting	Capital	Capital
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<b>Type</b>	<b>Factor</b> $\alpha 1_i$	<b>Factor</b> $\alpha 2_i$	<b>Charge</b> $\alpha 3_i$	<b>Charge</b> $\alpha 4_i$
Guaranteed Minimum Accumulation Benefit with less than 5 years to maturity	65.00%	125.00%	4.00%	7.00%
Guaranteed Minimum Accumulation Benefit with 5 years or more to maturity	20.00%	70.00%	1.50%	4.00%
Guaranteed Minimum Death Benefit with Return of Premium, Ratchets or Resets	4.00%	13.00%	0.25%	0.75%
Guaranteed Minimum Death Benefit with Enhanced Benefits (Roll Up)	12.00%	21.00%	0.75%	1.25%
Guaranteed Minimum Income Benefit	100.00%	160.00%	5.00%	8.00%
Guaranteed Minimum Withdrawal Benefit	60.00%	90.00%	3.25%	5.00%
Guaranteed Enhanced Earnings Benefit	1.00%	17.00%	0.00%	1.00%

**11.** The long-term other insurance risk charge calculation shall be established in accordance with the following formula-

$$C_{LToth} = \sum_{i>1} \alpha_i \times NetRes_i$$

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where-

$\alpha_i$  = Net Reserve capital charge factor for as prescribed in Table 8;

$NetRes_i$  = the net reserve as described in Table 10.

**Table 10 - Capital charge factors for long-term other insurance risk**

<b>Net Reserves</b>	<b>Statement Source</b>	<b>Capital Factor</b>
$NetRes_i$		$\alpha_i$
Payout Annuities and Deferred Annuities	Schedule III, column 1, lines 3 and 4	0.50%
Group life, health, disability insurance	Schedule III, column 1, lines 9, 10 and 11	0.50%
Disability Claims in Payment	Schedule III, column 1, lines 7 and 8	0.50%
All other products excluding variable annuity guarantees	Schedule III, column 1, lines 1, 2, 5, 6, 12 and 13	2.00%

12. The credit risk charge calculation shall be established in accordance with the following formula-

$$C_{cred} = \sum_i \delta_i \times creditor_i, \quad \text{where-}$$

$\delta_i$  = the credit risk capital charge factor for type of *creditor<sub>i</sub>* as prescribed in Table 11; and

*creditor<sub>i</sub>* = receivable amount from creditor *i*.

**Table 11 – Capital charge factors for *creditor<sub>i</sub>***

<b>Type of creditor</b> <i>creditor<sub>i</sub></i>	<b>Statement Source</b>	<b>Capital Factor</b> $\delta_i$
<i>Accounts and Premiums Receivable</i>		
In course of collection	Form 4, Line (10a)	5.0%
Deferred – not yet due	Form 4, Line (10b)	5.0%
Receivables from retrocessional contracts less: collateralized balances	Form 4, Line (10c) and (c) below	10.0%
<i>Reinsurance Balances Receivable</i>		
Foreign affiliates	Form 4, Line (11a)	10.0%
Domestic affiliates	Form 4, Line (11b)	0.0%
Pools & associations	Form 4, Line (11c)	10.0%
All other insurers	Form 4, Line (11d)	9.4%
Less: letters of credit	See (d) below	9.0%

Less: funds held by company	Form 4, Line (34)	9.7%
<i>All Other Receivables</i>		
Funds held by ceding reinsurers – rate AAA or AA	Schedule III Line 16(a)	0.8%
Funds held by ceding reinsurers – rated A	Schedule III Line 16(b)	3.2%
Funds held by ceding reinsurers - Other	Schedule III line 16(c)	5.0%
Accrued investment income	Form 4, Line (9)	2.5%
Investments in and advances to affiliates	Form 4, Line (4)	5.0%

- (a) all accounts and premiums receivable, reinsurance balances receivable, all other receivables, and reinsurance recoverable balances that are subject to capital charges within the credit risk charge shall be included;
- (b) all accounts and premiums receivable, reinsurance balances receivables, all other receivables, and reinsurance recoverable balances shall be reported on a basis consistent with that used for purposes of statutory financial reporting;
- (c) collateralized balances are all collaterals issued in favour of the insurer relating to accounts and premiums receivable;
- (d) assets accounted in Form 4, Line 34 shall not be included in (c);
- (e) letters of credit are the amount of the letters of credit issued in favour of the insurer relating to reinsurance receivable; and

- (f) assets accounted for in Form 4, Line 14 shall not be included in (e).

13. The operational risk charge calculation shall be established in accordance with the following formula:

$$C_{op} = \rho * ACov, \text{ where-}$$

$\rho$  = an amount between 1% and 10% as determined by the Authority in accordance with Table 12; and

$ACov$  = BSCR After Covariance amount or an amount approved by the Authority.

**Table 12**

**Operational Risk Charge for  $\rho$**

<b>Overall Score</b>	<b>Applicable Operational Risk Charge</b> $\rho$
<=5200	10%
>5200 <=6000	9%
>6000 <=6650	8%
>6650 <=7250	7%
>7250 <=7650	6%
>7650 <=7850	5%
>7850 <=8050	4%
>8050 <=8250	3%
>8250 <=8450	2%
>8450	1%

**INSTRUCTIONS AFFECTING TABLE 12**

In this table, “overall score” means an amount equal to the sum of the aggregate score derived from each of tables 12A, 12B, 12C, 12D, 12E, and 12F.



**Table 12A**  
**Corporate Governance Score Table**

<b>Criterion</b>	<b>Implemented</b>	<b>Score</b>
Board sets risk policies, practices and tolerance limits for all material foreseeable operational risks at least annually and ensures they are communicated to relevant business units		200
Board monitors adherence to operational risk tolerance limits more regularly than annually		200
Board receives, at least annually, reports on the effectiveness of material operational risk internal controls as well as management's plans to address related weaknesses		200
Board ensures that systems or procedures, or both, are in place to identify, report and promptly address internal control deficiencies related to operational risks		200
Board promotes full, open and timely disclosure from senior management on all significant issues related to operational risk		200
Board ensures that periodic independent reviews of the risk management function are performed and receives the findings of the review		200
<b>Total</b>		<b>XX</b>

<b>COMMENTS</b>
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**INSTRUCTIONS AFFECTING TABLE 12A**

The total score is derived by adding the score for each criterion of an insurer's corporate governance structure that the insurer has implemented.

**Table 12B**  
**Risk Management Function ('RMF') Score Table**

<b>Criterion</b>	<b>Implemented</b>	<b>Score</b>
RMF is independent of other operational units and has direct access to the Board of Directors		150
RMF is entrenched in strategic planning, decision making and the budgeting process		150
RMF ensures that the risk management procedures and policies are well documented and approved by the Board of Directors		150
RMF ensures that the risk management policies and procedures are communicated throughout the organization		150
RMF ensures that operational risk management processes and procedures are reviewed at least annually		150
RMF ensures that loss events arising from operational risks are documented and loss event data is integrated into the risk management strategy		150
RMF ensures that risk management recommendations are documented for operational units, ensures that deficiencies have remedial plans and that progress on		150

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the execution of such plans are reported to the Board of Directors at least annually		
TOTAL		XX

<b>COMMENTS</b>
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**INSTRUCTIONS AFFECTING TABLE 12B**

The total score is derived by adding the score for each criterion of an insurer's risk management function that the insurer has implemented.

**Table 12C**  
**Risk Identification Processes ('RIP') Score Table**

Stage	Progression Scoring	Criterion	Operational Risk Areas										
			Fraud	HR	Outsourcing	Distribution Channel	Business Processes	Business Continuity	IT	Compliance			
1	50	RIP are ad hoc											
2	100	RIP have been implemented but not standardized across the organization											
3	150	RIP have been implemented, well documented and understood by relevant staff, and standardized across the entire organization											
4	200	In addition to Stage 3, RIP are reviewed at least annually with a view to assessing effectiveness and introducing											

\_\_\_\_\_

	improvements		XX	XX			XX	XX	XX	XX	XX	XX
TOTAL			XX	XX			XX	XX	XX	XX	XX	XX

**COMMENTS**

**INSTRUCTIONS AFFECTING TABLE 12C**

- (a) the total score is derived by adding the individual score for each operational risk area corresponding to the stage of the insurer's implementation in respect of its RIP;
- (b) where the insurer's assessment of the operational risk area is between stages (i.e. exceeds the criterion for given stage, while only partially meeting the criterion of the next stage), the insurer shall be deemed to have met the criterion of the lower stage; and
- (c) where an operational risk area is not applicable to the insurer's operations, the insurer shall record such fact and the reasons for arriving at this conclusion in the comments section and be deemed to have met the criterion of the highest stage.

**Table 12D  
Risk Measurement Processes ('RMP') Score Table**

Progression		Criterion	Operational Risk Areas							
Stage	Scoring		Fraud	HR	Outsourcing	Distribution Channel	Business Processes	Business Continuity	IT	Compliance
1	50	RMP are ad hoc								
2	100	RMP have been implemented but not standardized across the organization								
3	150	RMP have been implemented, well documented and understood by relevant staff, and standardized across the entire organization								
4	200	In addition to Stage 3, RMP are reviewed at least annually with a view to assessing effectiveness and introducing improvements								

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TOTAL		XX	XX	XX	XX	XX	XX	XX	XX	XX
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**COMMENTS**

**INSTRUCTIONS AFFECTING TABLE 10D**

- (a) the total score is derived by adding the individual score for each operational risk area corresponding to the stage of the insurer's implementation in respect of its RMP;
- (b) where the insurer's assessment of the operational risk area is between stages (i.e. exceeds the criterion for given stage, while only partially meeting the criterion of the next stage), the insurer shall be deemed to have met the criterion of the lower stage; and
- (c) where an operational risk area is not applicable to the insurer's operations, the insurer shall record such fact and the reasons for arriving at this conclusion in the comments section and be deemed to have met the criterion of the highest stage.

**Table 12E**  
**Risk Response Processes ('RRP') Score Table**

Stage	Progression Scoring	Criterion	Operational Risk Areas										
			Fraud	HR	Outsourcing	Distribution Channel	Business Processes	Business Continuity	IT	Compliance			
1	50	RRP are ad hoc											
2	100	RRP have been implemented but not standardized across the organization											
3	150	RRP have been implemented, well documented and understood by relevant staff, and standardized across the entire organization											
4	200	In addition to Stage 3, RRP are reviewed at least annually with a view to assessing											



**Table 12F  
Risk Monitoring and Reporting Processes ('RMRP') Score Table**

Progression		Criterion	Operational Risk Areas							
Stage	Scoring		Fraud	HR	Outsourcing	Distribution Channel	Business Processes	Business Continuity	IT	Compliance
1	50	RMRP are ad hoc								
2	100	RMRP have been implemented but not standardized across the organization								
3	150	RMRP have been implemented, well documented and understood by relevant staff, and standardized across the entire organization								
4	200	In addition to Stage 3, RMRP are reviewed at least annually with a view to assessing effectiveness and introducing improvements								

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TOTAL		XX	XX	XX	XX	XX	XX	XX	XX	XX
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**COMMENTS**

**INSTRUCTIONS AFFECTING TABLE 12F**

- (a) the total score is derived by adding the individual score for each operational risk area corresponding to the stage of the insurer's implementation in respect of its RMRP;
- (b) where the insurer's assessment of the operational risk area is between stages (i.e. exceeds the criterion for given stage, while only partially meeting the criterion of the next stage), the insurer shall be deemed to have met the criterion of the lower stage; and
- (c) where an operational risk area is not applicable to the insurer's operations, the insurer shall record such fact and the reasons for arriving at this conclusion in the comments section and be deemed to have met the criterion of the highest stage.

**SCHEDULE II**  
**(Paragraph 2)**

**Schedule of fixed income investments by rating categories**

[blank] name of Company

As at [blank] (day/month/year)

[All amounts are expressed in \_\_\_\_\_ (currency used)]

Schedule Line No.	QUOTED INVESTMENTS		UNQUOTED INVESTMENTS		TOTAL [Form 4 Lines 2(b) & 3(b)]
	Bonds and Debentures		Bonds and Debentures		
	[Form 4 Line 2(b)]	20XX	[Form 4 Line 3(b)]	20XX	
1. Government	XXX	20XX	XXX	20XX	XXX
2. High Investment Grade (AAA & AA)	XXX	XXX	XXX	XXX	XXX
3. Medium Investment Grade (A)	XXX	XXX	XXX	XXX	XXX
4. Low Investment Grade (BBB)	XXX	XXX	XXX	XXX	XXX
5. Non Investment Grade	XXX	XXX	XXX	XXX	XXX
6. Mortgage-backed securities	XXX	XXX	XXX	XXX	XXX
7. Mutual Funds	XXX	XXX	XXX	XXX	XXX
8. Non Rated	XXX	XXX	XXX	XXX	XXX
9. Total	XXX	XXX	XXX	XXX	XXX

INSTRUCTIONS AFFECTING SCHEDULE II

- (a) quoted and unquoted issues shall be combined;
- (b) all non-government bonds shall be segregated according to the latest available AM Best, S&P, Moody's, or Fitch ratings of the issues with unrated bonds assigned to Non-Rated;
- (c) where the ratings differ between agencies, insurers shall segregate according to the most conservative rating;
- (d) the "Government" line includes all bonds and mortgage-backed securities issued by any government authority (including non-US jurisdictions, government agencies, and government-sponsored enterprises); and
- (e) all other types of bonds and debentures not included in Lines 6 or 7 may be segregated in Lines 1 to 5 or 8 as appropriate.

<b>Line Item</b>	<b>Description</b>
1 Government	All quoted and unquoted bonds and mortgage-backed securities issued by any government authority (including non-US jurisdiction).
2 High Investment Grade (AAA & AA)	High Investment Grade (AAA & AA) — All quoted and unquoted non-government bonds rated AAA & AA by any of the rating agencies mentioned above or equivalent.
3 Medium Investment Grade (A)	All quoted and unquoted non-government bonds rated A by rating agencies mentioned above or equivalent.
4 Low Investment Grade (BBB)	All quoted and unquoted non-government bonds rated BBB by rating agencies mentioned above or equivalent.

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<b>Line Item</b>	<b>Description</b>
5 Non-Investment Grade	All quoted and unquoted non-government bonds rated as non-investment grade by rating agencies mentioned above or equivalent.
6 Mortgage-backed securities	All quoted and unquoted mortgage-backed securities not issued by any government authority.
7 Mutual Funds	All quoted and unquoted mutual funds.
8 Non-Rated	All quoted and unquoted non-government bonds non-rated by rating agencies mentioned above or equivalent.

**SCHEDULE III  
 (Paragraphs 4, 5, 6, 7, 8, 9, 11, 12)  
 SCHEDULE OF LONG-TERM DATA AND RECONCILIATION**

Sample Company  
 Schedule III (\$'000)  
 For the Year Ending December 31, 2010

Return to Index  
 Schedule III

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Bermuda Statutory Reserve (\$'000)	Reported Reserve (\$'000)	Best Estimate Reserve (\$'000)	Best Estimate Reserve (Supplied zero Reserve) (\$'000)	Adjustable Product Treaty (\$'000)	Net Amount at Risk Non-adjustable Product Treaty (\$'000)	Total (\$'000)
1. Mortality (term assurance, whole life, universal life)							
2. Critical illness (including accelerated CI products)							
3. Longevity (payout annuities, contingent annuities, pension blocks)							
4. Other (includes participating index linked products with no guarantees)							
5. Disability (active lives - incl. waiver of premium and LTC Length of Premium Guarantee (a) <= 1 year (b) 1-5 years (c) > 5 years Total							
6. Disability income: active lives - other accident and sickness							
7. Disability income: claims in payment - incl. waiver of premium and LTC							
8. Disability income: claims in payment - other accident and sickness							
9. Group Life							
10. Group Disability							
11. Other							
12. Non-proportional covers							
13. Other product riders not included above							
Total (excluding variable annuities)							
14. Weighted average of the difference between assets duration and liabilities duration (weighted by reported reserves)	Duration (yrs)						
15. Reserves with known difference in duration / Total Reserves	% Reserves						
16. FUNDS HELD BY CEDING COMPANIES (a) in which the ceding company has a AAA, AA rating (b) in which the ceding company has a rating lower than A (c) in which the ceding company has a rating lower than A Total funds held by ceding companies	Amount Held (\$'00)						
17. Long-Term License Class	Class C						

**SCHEDULE IV** **(Paragraph 10)**  
**SCHEDULE OF LONG-TERM VARIABLE ANNUITY DATA AND RECONCILIATION**

[All amounts expressed in ..... (currency used )]

		[1]	[2]	[3]	[4]
		('000)	('000)	('000)	('000)
1	Guaranteed Minimum Accumulation Benefit: <5 years to maturity	XXX	XXX	XXX	XXX
2	Guaranteed Minimum Accumulation Benefit: >=5 years to maturity	XXX	XXX	XXX	XXX
3	Guaranteed Minimum Death Benefit: Return of Premium, Ratchet and Reset <sup>2</sup> .	XXX	XXX	XXX	XXX
4	Guaranteed Minimum Death Benefit: Enhanced Benefits (Roll up) <sup>2</sup> .	XXX	XXX	XXX	XXX
5	Guaranteed Minimum Income Benefit	XXX	XXX	XXX	XXX
6	Guaranteed Minimum Withdrawal Benefit	XXX	XXX	XXX	XXX
7	Guaranteed Enhanced Earnings Benefit	XXX	XXX	XXX	XXX
	<b>Total (Variable Annuities)</b>	<b>XXX</b>	<b>XXX</b>	<b>XXX</b>	<b>XXX</b>

**INSTRUCTIONS AFFECTING SCHEDULE IV**

**Notes**

- 1 Factors should be applied to Net Amount at Risk (NAR) defined as:
  - GMAB Total claim payable if all contracts mature immediately
  - GMDB Total claim amount payable upon immediate death of all policyholders
  - GMIB Total claim payable upon full and immediate annuitization of all policies using an 80% factor applied to the GV (the 80% represents the ratio between current market annuitization factors and the guaranteed annuitization factors)
  - GMWB Total claim payable if 100% of the guaranteed withdrawal benefit base in excess of the current account value is withdrawn immediately
  - GEEB Total guaranteed enhanced payments upon immediate death of all policyholders
- 2 Where ratchets, resets and roll-ups exist, please use the roll-up category.
- 3 NAR is net of reinsurance.
- 4 The proportion used for the account value under reinsurance is the proportion used for NAR.
- 5 Volatility is defined as the annual volatility of the fund. In the case where there is no, or limited, history of the fund, use the volatility of the benchmark.

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**SCHEDULE V**

**(Paragraph 6)**

**SCHEDULE OF COMMERCIAL INSURER'S SOLVENCY SELF ASSESSMENT (CISSA)**

The Schedule of CISSA shall provide particulars of the following matters:

- a) Table 13: CISSA capital summary disclosing the insurer's own capital computations, insurer's plans for raising additional capital and contingency arrangements impacting the available capital.
- b) Table 13A: CISSA general questions relating to an insurer's risk management and governance program, the review and approval of CISSA, integration of CISSA into the strategic decision making process, governance and controls surrounding the model(s)/tool(s) used to compute the capital, assessment of concentration risk and risk appetite of an insurer.
- c) Insurer's qualitative and quantitative assessment of the following risk categories:
  - o Table 13B: Insurance risk – mortality;
  - o Table 13C: Insurance risk – longevity;
  - o Table 13D: Insurance risk – morbidity;
  - o Table 13E: Insurance risk – variable annuity guarantees
  - o Table 13F: Insurance risk – other;
  - o Table 13G: Market risk;
  - o Table 13H: Credit risk;
  - o Table 13I: Interest and liquidity risk;
  - o Table 13J: Operational risk; and
  - o Table 13K: Group, Reputational and Strategic risk.

**INSTRUCTIONS AFFECTING SCHEDULE V**

Table 13

CISSA Capital Summary

	<b>Projected Target Economic Capital</b>	<b>Projected Economic Capital at 99.0% TVaR</b>	<b>Projected Economic Capital at 99.95% TVaR</b>
<b>CAPITAL</b>			
<b>Insurance risk – mortality</b>	_____	_____	_____
<b>Insurance risk –</b>	_____	_____	_____

<b>longevity</b>	_____	_____	_____
<b>Insurance risk – morbidity</b>	_____	_____	_____
<b>Insurance risk – variable annuity guarantees</b>	_____	_____	_____
<b>Insurance risk – other</b>	_____	_____	_____
<b>Market risk</b>	_____	_____	_____
<b>Credit risk</b>	_____	_____	_____
<b>Interest and Liquidity risk</b>	_____	_____	_____
<b>Operational risk</b>	_____	_____	_____
<b>Group, Reputational and Strategic risk</b>	_____	_____	_____
Other (specify)	_____	_____	_____
<b>Total capital pre-diversification between risk categories</b>	_____	_____	_____
<b>Diversification credit between risk categories</b>	_____	_____	_____
<b>Total capital after diversification between risk categories</b>	_____	_____	_____
	=====	=====	=====

Table 13, continued

<p><b>ADDITIONAL INFORMATION</b></p> <p>1. What is the primary reason(s) (select multiple responses where applicable) for aiming at the disclosed Projected Target Economic Capital amount? (select all that apply)</p> <ul style="list-style-type: none"> <li><input type="radio"/> target agency rating (e.g. "A-", "AA", etc);</li> <li><input type="radio"/> market share;</li> <li><input type="radio"/> business expansion;</li> <li><input type="radio"/> nature of product(s) (e.g. risk characteristics);</li> <li><input type="radio"/> manage downgrade risk; and</li> <li><input type="radio"/> others (briefly describe).</li> </ul>
---

2. What methodology is used to aggregate the risk categories?

3. Does the insurer have sufficient capital and liquidity based on CISSA to achieve its medium and long-term (e.g. 2 to 5 years, etc.) strategic objectives? (Yes or No)

If no, briefly describe the potential adverse consequences.

4. What contingency plans are in place for raising additional capital under stress situations? (select all that apply)

- parental guarantees;
- revolving letters of credit;
- issue subordinated debt;
- issue preference shares;
- float additional shares;
- capital injections from parent;
- contingent surplus notes;
- catastrophe derivatives (e.g. bonds, swaps and options); and
- Others (briefly describe)

5. Does the insurer have arrangements/ contractual commitments to provide support to affiliates/other companies in stressed situations? (Yes or No)

If yes, briefly describe the arrangement(s) and the aggregate exposure.

6. Does the insurer have assets, above those that are encumbered (to support regulatory capital requirements and policyholder obligations) at the subsidiary level, that are not fungible and transferable? (Yes or No)

If yes, provide details and briefly describe how these have been reflected in the CISSA.

7. Has the insurer engaged in multiple gearing? (Yes or No)

If yes, provide details and amount of capital .

8. Briefly provide a narrative surrounding actual business continuity/disaster plans in place and any disaster mitigation and monitoring.

9. Was the CISSA return reviewed and approved by the Board of Directors?

**INSTRUCTIONS AFFECTING TABLE 13**

- 
- In this Table, the Projected Target Economic Capital, Projected Economic capital at 99.0%TVaR and Projected Economic Capital at 99.95% TVaR amounts for the respective risks are derived from Tables 8C, 8D, 8E, 8F, 8G, 8H, and 8I.
  
  - Total capital pre-diversification between risk categories is derived by aggregating all the risk categories.
  
  - Total capital after diversification between risk categories shall be derived by deducting the diversification benefit (calculated by an insurer) from the “Total capital pre-diversification between risk categories”.
  
  - Where a question/section is not applicable to an insurer or the options provided do not fully reflect the insurer’s position, the insurer shall include a brief description in the comment fields.

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Table 13A

CISSA General Questions

**1. CISSA Integration**

Is the CISSA and its underlying information integrated (ie considered when making key strategic decisions) into the insurer's strategic and risk management decision-making processes? (Yes or No)

If yes, how is CISSA and its underlying information used? (select all that apply)

- strategic planning;
- annual business planning;
- setting risk limits;
- defining risk appetite;
- evaluation of capital adequacy;
- allocation of capital to business segments and lines of business;
- capital management;
- determination of rates of return for pricing and underwriting guidelines;
- reinsurance purchase;
- determination of investment policies and strategies;
- meeting regulatory requirements;
- improving credit rating;
- improving investor relations;
- assessing risk adjusted product profitability;
- performance measurement and assessment;
- improving mergers and acquisition decisions; and
- others (list)

**2. Concentration Risk**

a) Is there a potential for an insurer to have an accumulation of losses to material lines of business arising from the following that could threaten its solvency? (Yes or No)

If yes, what are the potential cause(s) of the accumulation of losses? (select all that apply)

- a severe event;
- series of many small events or individual claims;
- over concentration of exposure to one product;
- over concentration to one source of business;
- over concentration to one line of business;
- a common cause across many years; and
- others (list)

b) Does the insurer have absolute limitations set on individual policies or groups of policies to avoid threatening its solvency (such as limitations on a per life basis, geographical basis, product basis, line of business basis, source of business basis, etc)? (Yes or No)

If yes, are the limitations assessed for reasonableness and effectiveness in reducing the threat to solvency?

c) Does the insurer purchase reinsurance to mitigate the risk of accumulated losses? (Yes or No)

d) Does the insurer have procedures in place to assess the adequacy of the reinsurance purchased both from a severity and frequency perspective for solvency purposes? (Yes or No)

e) Does the insurer have procedures in place to ensure that there are no significant mismatches between the policies issued by the insurer and the reinsurance programme (Yes or No)

f) Does the insurer have access to additional capital and surplus to cover loss and loss adjustment expenses (e.g. letters of credit, parental guarantees, other contingent capital sources, etc)? (Yes or No)

**3. Related Business**

a) What percentage of the gross premiums written covers related policyholders?

Optionally, insurers may provide additional comments to support its responses under questions 2 and 3 above.

**4. Model(s)/tool(s) used to calculate the Projected Target Economic Capital**

<b>Governance</b>	<b>Response</b>	<b>Comments</b>
Does the board of directors, chief and senior executives approve the design, maintenance and use of the model(s)/tool(s)?		
How often does the board or relevant board committees review outputs, changes and issues arising from the model(s)/tool(s) (review should be documented e.g. minutes, presentations etc)?		
Does the board and chief and senior executives have a thorough understanding of the key assumptions/elements and the implications of the outputs (including limitations) of the model(s)/tool(s)?		
<b>Validation</b>		
Is the model(s)/tool(s) subject to a regular cycle of validation, which includes the monitoring of performance, review appropriateness of model specifications and testing of forecast results against actual results?		
How often is the validation of the model(s)/tool(s) performed?		
Does the validation process demonstrate that the model(s)/tool(s) remains suitable during changing conditions (e.g. changes in inflation, interest rate, etc)? If no, provide comments.		

<b>Documentation</b>		
Does the insurer have formal documentation of the structure, design, operational details, input assumptions, parameters, governance process and controls of the model(s)/tool(s)?		
If yes, to what extent is the model(s)/tool(s) documented such that it can be used by new personnel with limited user experience? (include comments for partial or no documentations)		
How often does the Board of Directors or chief and senior executives review and approve the model/input documentation?		
<b>Internal controls</b>		
How does the insurer rate the effectiveness of the controls in place to monitor and evaluate the operation and maintenance of the model(s)/tool(s)?		
Are there strict protocols in place restricting access to the model(s)/tool(s) and ability to make adjustments thereto?		
<b>Others</b>		
What is the risk measure (Var, TVaR etc), confidence interval (95%, 99.95% etc) and time horizon (1 year, 5 years etc)?		

- 5. The Insurer's risk appetite (i.e. the amount of capital the insurer is willing to lose in any single event or a series of events over a defined period).**
- a) How does the insurer define its risk appetite?  
b) What is the insurer's risk appetite and how is it measured?  
c) What are the limits imposed and how are the limits enforced?  
d) How often does the insurer monitor/review adherence to its risk appetite (e.g. adherence to limits set)?
- 6. Has the insurer applied reverse stress testing to both identify the scenarios that could cause business failure and the required actions to manage such situations? (Yes or No)**
- 7. Is the CISSA process clearly documented and regularly amended for changes in strategic direction, risk management framework, and market developments? (Yes or No)**
- 8. How often is the information underlying CISSA discussed and reviewed by the board and chief and senior executives?**
- 9. Has the board and chief and senior executives ensured that an appropriate oversight process is in place, including an appropriate level of independent verification, whereby material deficiencies are reported on a timely basis and suitable actions taken? (Yes or No)**

- 10. What are the key risks that the insurer faces over the course of the next 2 to 3 years, and the steps taken (if any) to manage/address these key risks? (list the risks and the steps taken ).**

---

**11. Briefly describe the insurer's governance structure including the:**

- a) The structure of the board of directors and executive management, including roles and work experience of officers.
- b) The terms of reference of the board of directors and its sub-committees.

**12. Provide details of material intra-group exposures between the insurer and other members of the group to which it belongs.**

- a) The details of the intra-group transactions would include (where applicable):
  - i Exposure value (face value or market value, if the latter is available);
  - ii. Counterparties involved including where they are located;
  - iii Summary details of the transaction including purpose, terms, transaction costs etc.;
  - iv Duration of the transaction; and
  - v Performance triggers.
- b) The details surrounding reinsurance and retrocessions arrangements would cover:
  - i Aggregated values of the exposure limits (gross and net) by counterparties, broken down by counterparty rating;
  - ii Aggregated premium flows between counterparties (gross and net); and
  - iii The proportion of the insurer's business exposure covered by internal reinsurance, retrocession and other risk transfer arrangements.

---

**13. Briefly describe the risk management program including:**

- i How the risk management program is used for strategic management decision making, capital allocation and capital adequacy;
- ii The governance surrounding the risk management process including the identification of the owners of the process and the extent of the board of directors involvement;and
- iii A description of the process undertaken to monitor material risk concentration.

**14. Provide a risk register analysis disclosing:**

- i A description of the insurer's material risks;
- ii Owners of the respective risks;
- iii The impact and probability of the risk and the overall risk assessment;
- iv A summary of risk mitigation/controls in place and an assessment of their effectiveness in reducing the probability and/or impact of the risk; and
- v Overall assessment of the impact and probability of the residual risk.

Instructions affecting Table 13A

- o Where a question/section is not applicable to an insurer or the options provided do not fully reflect the insurer's position, a brief description shall be included in the comment fields.
- o independent verification shall be conducted by an internal or external auditor or any other appropriately skilled internal or external function, as long as they have not been responsible for the part of the CISSA process they review, and are therefore deemed to be independent in their assessment.
- o In relation to intra-group transactions, materiality will be defined as:
  - i. an intra-group transaction whose impact can cause a reduction in the insurer's available statutory capital and surplus by 5% or more;
  - ii. a series of linked intra-group transactions that can cumulatively reduce an insurer's available capital and surplus by 10% or more; and
  - iii. Qualitative risk characteristics of the transaction: for example, a transaction may be assessed as high risk; however, the quantitative impact remains unknown.

---

Table 13B

CISSA Insurance risk - mortality

- Who is the risk owner (title)?
  
- What are the qualifications of the risk owner?
  
- What are the responsibilities of the risk owner? (summary).

**PROJECTED TARGET ECONOMIC CAPITAL**

1. What is the primary model(s)/tool(s) used to calculate the Projected Target Economic Capital for mortality risk?
  
2. What are the primary sources of data inputs for the model(s)/tool(s) used for mortality risk (e.g. insurer's historical data, industry data, etc)?
  
3. What are the key assumptions used (e.g. assumed health improvement, etc) to determine the mortality risk?
  
4. What are the main drivers for the insurer's mortality risk? (e.g process, parameter, calamity)
  
5. What approximations are used in the model(s) for mortality risk?
  
6. What products / lines of businesss are the main contributors to mortality risk?
  
7. Provide details of stress and scenario testing performed for mortality risk; include the key assumptions and the quantitative results of the tests.
  
8. What risk mitigation/transfer techniques does the insurer have in place to address mortality risk?

		Pre-diversification	Diversification benefit	Post-diversification
9	Projected Target Economic Capital for mortality risk			
10.	Projected Economic Capital at 99.0% TVaR for mortality risk (over 1 year time horizon)			
11.	Projected Economic Capital at 99.95% TVaR for mortality risk (over 1 year time horizon)			

- 
12. Explain the primary reason(s) for any material deviations between the Projected Target Economic Capital at 99% TVaR calculated for mortality risk and the same capital charge in the BSCR model (material being difference exceeding 10%).

instructions affecting Table 13B

- Where a question/section is not applicable to an insurer or the options provided do not fully reflect the insurer's position, a brief description shall be included in the comment fields.
- Where an insurer does not allocate capital for mortality risk, questions 9, 10 and 11 shall include nil amounts.
- Mortality risk from the BSCR model consists of insurance risk – mortality, insurance risk - non-proportional and insurance risk - riders.

Table 13C

CISSA Insurance risk - longevity

- Who is the risk owner (title)?
- What are the qualifications of the risk owner?
- What are the responsibilities of the risk owner? (summary).

**PROJECTED TARGET ECONOMIC CAPITAL**

1. What is the primary model(s)/tool(s) used to calculate the Projected Target Economic Capital for longevity risk?
2. What are the primary sources of data inputs for the model(s)/tool(s) used for longevity risk (e.g. insurer's historical data, industry data, etc)?
3. What are the key assumptions used (e.g. assumed health improvement, etc) to determine the longevity risk?
4. What are the main drivers for the insurer's longevity risk? (e.g process, parameter, calamity)
5. What approximations are used in the model(s) for longevity risk?
6. What products / lines of business are the main contributors to longevity risk?
7. Provide details of stress and scenario testing performed for longevity risk; include the key assumptions and the quantitative results of the tests.
8. What risk mitigation/transfer techniques does the insurer have in place to address longevity risk?

		Pre-diversification	Diversification benefit	Post-diversification
9	Projected Target Economic Capital for longevity risk			
10.	Projected Economic Capital at 99.0% TVaR for longevity risk (over 1 year time horizon)			
11.	Projected Economic Capital at 99.95% TVaR for longevity risk (over 1 year time horizon)			

- 
12. Explain the primary reason(s) for any material deviations between the Projected Target Economic Capital at 99% TVaR calculated for longevity risk and the same capital charge in the BSCR model (material being difference exceeding 10%).

instructions affecting Table 13C

- Where a question/section is not applicable to an insurer or the options provided do not fully reflect the insurer's position, a brief description shall be included in the comment fields.
- Where an insurer does not allocate capital for longevity risk, questions 9, 10 and 11 shall include nil amounts.

Table 13D

CISSA insurance risk – morbidity

- Who is the risk owner (title)?
- What are the qualifications of the risk owner?
- What are the responsibilities of the risk owner? (summary).

**PROJECTED TARGET ECONOMIC CAPITAL**

1. What is the primary model(s)/tool(s) used to calculate the Projected Target Economic Capital for morbidity risk?
2. What are the primary sources of data inputs for the model(s)/tool(s) used for morbidity risk (e.g. insurer's historical data, industry data, etc)?
3. What are the key assumptions used (e.g. assumed health risks, medical care, etc) to determine the morbidity risk?
4. What are the main drivers for the insurer's morbidity risk? (e.g. process, parameter, calamity?)
5. What products / lines of business are the main contributors to morbidity risk?
6. What approximations are used in the model(s) for morbidity risk ?
7. Provide details of stress and scenario testing performed for morbidity risk; include the key assumptions and the quantitative results of the tests.

---

8. What risk mitigation/transfer techniques does the insurer have in place to address morbidity risk?

		Pre-diversification	Diversification benefit	Post-diversification
9	Projected Target Economic Capital for morbidity risk			
10	Projected Economic Capital at 99.0% TVaR for morbidity risk (over 1 year time horizon)			
11	Projected Economic Capital at 99.95% TVaR for morbidity risk (over 1 year time horizon)			

12. Explain the primary reason(s) for any material deviations between the Projected Target Economic Capital at 99% TVaR calculated for morbidity risk and the same capital charge in the BSCR model (material being difference exceeding 10%).

Instructions affecting Table 13D

- Where a question/section is not applicable to an insurer or the options provided do not fully reflect the insurer's position, a brief description shall be included in the comment fields.
- Where an insurer does not allocate capital for morbidity risk, questions 9, 10 and 11 shall include nil amounts.

Table 13E

CISSA insurance risk – variable annuity guarantee risk

- Who is the risk owner (title)?
- What are the qualifications of the risk owner?
- What are the responsibilities of the risk owner? (summary).

**PROJECTED TARGET ECONOMIC CAPITAL**

1. What is the primary model(s)/tool(s) used to calculate the Projected Target Economic Capital for variable annuity guarantee risk?
2. What are the primary sources of data inputs for the model(s)/tool(s) used for variable annuity guarantee risk (e.g. public domain economic analysis, direct fund historical data, etc)?
3. What are the key assumptions used (e.g. fund volatility, mortality/longevity risk) to determine the variable annuity guarantee risk?
4. What are the main drivers for the insurer's variable annuity guarantee risk? (e.g. process, parameter, calamity?)
5. What variable annuity product types are the main contributors to variable annuity guarantee risk?
6. What approximations are used in the model(s) for variable annuity guarantee risk?
7. Provide details of stress and scenario testing performed for variable annuity guarantee risk; include the key assumptions and the quantitative results of the tests.
8. What risk mitigation/transfer techniques does the insurer have in place to address variable annuity guarantee risk?

		Pre-diversification	Diversification benefit	Post-diversification
9	Projected Target Economic Capital for <u>variable annuity guarantee risk</u>			
10	Projected Economic Capital at 99.0% TVaR for <u>variable annuity guarantee risk</u> (over 1 year time horizon)			
11	Projected Economic Capital at			

	99.95% TVaR for <u>variable annuity guarantee</u> risk (over 1 year time horizon)			
--	---	--	--	--

12. Explain the primary reason(s) for any material deviations between the Projected Target Economic Capital at 99% TVaR calculated for variable annuity guarantee risk and the same capital charge in the BSCR model (material being difference exceeding 10%).

Instructions affecting Table 13E

- Where a question/section is not applicable to an insurer or the options provided do not fully reflect the insurer’s position, a brief description shall be included in the comment fields.
- Where an insurer does not allocate capital for variable annuity guarantee risk, questions 9, 10 and 11 shall include nil amounts.

Table 13F

CISSA insurance risk - other

Insurance risk – other covers insurance risks not covered elsewhere such as policyholder behavior risks, expense risks and product guarantee risks

- Who is the risk owner (title)?
- What are the qualifications of the risk owner?
- What are the responsibilities of the risk owner? (summary)

**PROJECTED TARGET ECONOMIC CAPITAL**

1. What is the primary model(s)/tool(s) used to calculate the Projected Target Economic Capital for other insurance risks?
2. What are the primary sources of data inputs for the model(s)/tool(s) used for other insurance risks (e.g. insurer’s historical data, industry data, etc)?
3. What are the key assumptions used (e.g. considerations for market movements, withdrawal, lapse, etc) to determine other insurance risks risks?
4. What are the main drivers of other insurance risks? (e.g. lapse assumptions, withdrawal assumptions, etc?)
5. What products / lines of business are the main contributors to other insurance risks?

---

6 What approximations are used in the model(s) for other insurance risks?

7. Provide details of stress and scenario testing performed for other insurance risks, include the key assumptions and the quantitative results of the tests.

8. What risk mitigation/transfer techniques does the insurer have in place to address other insurance risks?

		Pre-diversification	Diversification benefit	Post-diversification
9	Projected Target Economic Capital for other insurance risks			
10	Projected Economic Capital at 99.0% TVaR for other insurance risks (over 1 year time horizon)			
11	Projected Economic Capital at 99.95% TVaR for other insurance risks (over 1 year time horizon)			

12. Explain the primary reason(s) for any material deviations between the Projected Target Economic Capital at 99% TVaR calculated for other insurance risks and the provision for other insurance risks capital charge in the BSCR model (material being difference exceeding 10%).

Instructions affecting Table 13F

- Where a question/section is not applicable to an insurer, a brief description shall be included in the comment fields.
- Where an insurer does not allocate capital for other insurance risk, questions 9, 10, 11 shall include nil amounts.

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Table 13G

CISSA market risk

- Who is the risk owner (title)?
- What are the qualifications of the risk owner?
- What are the responsibilities of the risk owner? (summary)

**PROJECTED TARGET ECONOMIC CAPITAL**

1. What is the primary model(s)/tool(s) used to calculate the Projected Target Economic Capital for market risk?
2. What are the primary sources of data inputs for the model(s)/tool(s) used for market risk (e.g. market prices from Bloomberg, asset ratings, interest rates etc)?
3. What are the key assumptions used (e.g inflation rate, duration, assumed correlation considerations and the diversification benefits, etc) to determine the market risk?
4. What are the main drivers for the insurer's market risk?
5. What approximations are used in the model(s)/tool(s) used for market risk?
6. Provide details of stress and scenario testing performed for market risk, include the key assumptions and the quantitative results of the tests.
7. What risk mitigation/transfer techniques does the insurer have in place to address market risk (e.g. the hedging strategies applied)?

		Pre-diversification	Diversification benefit	Post-diversification
8	Projected Target Economic Capital for market risk			
9	Projected Economic Capital at 99.0% TVaR for market risk (over 1 year time horizon)			
10	Projected Economic Capital at 99.95% TVaR for market risk			

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	(over 1 year time horizon)			
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11. Explain the primary reason(s) for any material deviations between the Projected Target Economic Capital at 99% TVaR calculated for market risk and the same capital charge in the BSCR model (material being difference exceeding 10%).

Instructions affecting Table 13gG

- Where a question/section is not applicable to an insurer, a brief description shall be included in the comment fields.
  
- Where an insurer does not allocate capital for market risk, questions 8, 9 and 10 shall include nil amounts.
  
- market risk from the BSCR model consists of equity investment risk and fixed income investment risk.

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Table 13H

CISSA credit risk

- Who is the risk owner (title)?
- What are the qualifications of the risk owner?
- What are the responsibilities of the risk owner? (summary)

**PROJECTED TARGET ECONOMIC CAPITAL**

1. What is the primary model(s)/tool(s) used to calculate the Projected Target Economic Capital for credit risk?
2. What are the primary sources of data inputs for the model(s)/tool(s) used for credit risk (e.g. rating agency, historical data, etc)?
3. What are the key assumptions used (e.g probabilities of default used, assumed correlation considerations and the diversification benefits, etc) to determine the credit risk?
4. What are the main drivers for the insurer's credit risk?
5. What approximations are used in the model(s)for credit risk?
6. Provide details of stress and scenario testing performed for credit risk, include the key assumptions and the quantitative results of the tests.
7. What risk mitigation/transfer techniques does the insurer have in place to address credit risk ?

		Pre-diversification	Diversification benefit	Post-diversification
8.	Projected Target Economic Capital for credit risk			
9.	Projected Economic Capital at 99.0% TVaR for credit risk (over 1 year time horizon)			
10.	Projected Economic Capital at 99.95% TVaR for credit risk (over 1 year time horizon)			

- 
11. Explain the primary reason(s) for any material deviations between the Projected Target Economic Capital at 99% TVaR calculated for credit risk and the same capital charge in the BSCR model (material being difference exceeding 10%).

Instructions affecting Table 13F

- Where a question/section is not applicable to an insurer, a brief description shall be included in the comment fields.
  
- Where an insurer does not allocate capital for credit risk, questions 8, 9 and 10 shall include nil amounts.

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Table 13I

CISSA interest and liquidity risk

- Who is the risk owner (title)?
- What are the qualifications of the risk owner?
- What are the responsibilities of the risk owner? (summary)

**PROJECTED TARGET ECONOMIC CAPITAL**

1. What is the primary model(s)/tool(s) used to calculate the Projected Target Economic Capital for interest and liquidity risk?
2. What are the primary sources of data inputs for the model(s)/tool(s) used for interest and liquidity risk?
3. What are the key assumptions used (e.g inflation rate, duration, assumed correlation considerations and the diversification benefits, etc) to determine the interest and liquidity risk?
4. What are the main drivers for the insurer's interest and liquidity risk?
5. What approximations are used in the model(s) for interest and liquidity risk?
6. Has the insurer implemented policies on asset liability management, including tolerances for deviation?
7. Have clear roles and responsibilities for the execution of the asset liability management program been assigned?
8. Are asset liability management positions/tolerances communicated to the investment function, senior management and the board on a timely basis?
9. Have systems and procedures been established to identify, report and promptly address asset liability management deficiencies?
10. Are the asset liability management policies and procedures reviewed and reapproved or revised at least annually?

- 
11. Is the insurer's current asset liability management position in compliance with the insurer's policies?
12. Provide details of stress and scenario testing performed for interest and liquidity risk, include the key assumptions and the quantitative results of the tests.
13. What risk mitigation/transfer techniques does the insurer have in place to address interest and liquidity risk?

		Pre-diversification	Diversification benefit	Post-diversification
14	Projected Target Economic Capital for <u>interest and liquidity risk</u>			
15	Projected Economic Capital at 99.0% TVaR for <u>interest and liquidity risk</u> (over 1 year time horizon)			
16	Projected Economic Capital at 99.95% TVaR for <u>interest and liquidity risk</u> (over 1 year time horizon)			

Instructions affecting Table 13I

- Where a question/section is not applicable to an insurer, a brief description shall be included in the comment fields.
- Where an insurer does not allocate capital for interest and liquidity risk, questions 14, 15 and 16 shall include nil amounts.

Table 13J

CISSA operational risk

- Who is the risk owner (title)?
- What are the qualifications of the risk owner?
- What are the responsibilities of the risk owner? (summary)

**PROJECTED TARGET ECONOMIC CAPITAL**

- 
1. What are the main drivers for the insurer's operational risk?
  2. Provide details of stress and scenario testing performed for operational risk, include the key assumptions and the quantitative results of the tests.
  3. What risk mitigation/transfer techniques does the insurer have in place to address operational risk?

		Pre-diversification	Diversification benefit	Post-diversification
4	Projected Target Economic Capital for operational_risk			
5	Projected Economic Capital at 99.0% TVaR for operational_risk (over 1 year time horizon)			
6	Projected Economic Capital at 99.95% TVaR for operational_risk (over 1 year time horizon)			

Instructions affecting Table 13J

- Where a question/section is not applicable to an insurer, a brief description shall be included in the comment fields.
- Where an insurer does not allocate capital for operational risk, questions 4, 5 and 6 shall include nil amounts.

Table 13K

CISSA group, reputational and strategic risk

- Who is the risk owner (title)?
- What are the qualifications of the risk owner?
- What are the responsibilities of the risk owner? (summary)

**PROJECTED TARGET ECONOMIC CAPITAL**

- 
1. What are the main drivers for the insurer's group, reputational and strategic risk?
  
  2. Provide details of stress and scenario testing performed for group, reputational and strategic risk, include the key assumptions and the quantitative results of the tests.
  
  3. What risk mitigation/transfer techniques does the insurer have in place to address group, reputational and strategic risk ?

		Pre-diversification	Diversification benefit	Post-diversification
4	Projected Target Economic Capital for group, reputational and strategic risk			
5	Projected Economic Capital at 99.0% TVaR for group reputational and strategic risk (over 1 year time horizon)			
6	Projected Economic Capital at 99.95% TVaR for group reputational and strategic risk (over 1 year time horizon)			

Instructions affecting Table 13K

- Where a question/section is not applicable to an insurer, a brief description shall be included in the comment fields.
  
- Where an insurer does not allocate capital for group, reputational and strategic risk, questions 4, 5 and 6 shall include nil amounts.