

# Circular

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**Title: Actuarial Report on  
Solvency and Capital**

**Number: 202012/202/ت.ع.م  
Date: 02/12/2020**

With reference to Article (56) of The Actuarial Work Rules for Insurance dated 06/07/1441H, wherein the Appointed Actuary shall investigate and provide advice to the insurance company on its solvency position and the adequacy of the capital that it holds.

This circular contains instructions for the insurance company "Company" for submission of the Solvency and Capital report, hereinafter called "Report".

## **Purpose**

The purpose of this report is for the Appointed Actuary to:

- 1) Enable the Company's management and Board of Directors to understand the implications of the latest business plan on the future solvency position of the Company .
- 2) Determine significance of each risk faced by the Company through stress testing and scenario analysis, in order to facilitate informed decision-making by the Company management, its Board of Directors, and its various functions.
- 3) Make clear recommendations for consideration of the Company management and its Board of Directors to improve the Company's risk profile, risk mitigation strategies, and its solvency position.

## **Report**

The report shall comprise of the following three sections:

- A) Business Plan and Projected Solvency Position  
This section shall consist of the following:
  - 1) Historical and Projected Income Statement
  - 2) Historical and Projected Balance Sheet

3) Historical and Projected Solvency Ratio

B) Stress Testing

For each stress test listed in Appendix 1, this section shall consist of the following:

- 1) Data used, including reconciliations performed and deficiencies observed
- 2) Assumptions made
- 3) Results of the stress test

C) Scenario Analysis

For each scenario listed in Appendix 1, this section shall consist of the following:

- 1) Data used, including reconciliations performed and deficiencies observed
- 2) Assumptions made
- 3) Results of the scenario test

The stress tests and scenario analysis mentioned in Appendix 1 are the minimum required. The Company is encouraged to run additional stress tests and scenario analysis relevant for its risk profile. The outcome of these additional stress tests and scenario analysis shall be clearly documented in the report.

A Capital and Solvency template (“Template”), designed to capture a summary of the above Report, shall also be filled by the Appointed Actuary. The Template is attached as Appendix 2.

**Submission**

The Report and the Template must be submitted via RMS as well as via email to [IC.Tec@sama.gov.sa](mailto:IC.Tec@sama.gov.sa) by 24 December 2020.

**Presentation to the Board of Directors**

The Appointed Actuary must present his recommendations stated in the above Report to the Board of Directors within two (2) months of producing the Report. The relevant extracts from the minutes of the Board meeting must be submitted to SAMA within one month of holding the Board meeting.

**Appendix 1 – Specifications for Stress and Scenario Tests**

**Stress Tests**

Risk	Sub risk	Change in solvency
Market	Interest rate	A 2% up and down stress on interest rate sensitive assets and liabilities; downward stress is subject to a floor of 0%

	Equity	Reduction in of equity values : 50% decrease in equities listed on Tadawal or equities listed in OECD countries 60% decrease in Other equities (including those listed on Nomu and unlisted equities)
	Property	A decrease of 25 % in the value of investments in real estate, taking account of all direct and indirect exposures to property prices.
	Currency	The maximum capital requirement of the following: scenario upward shock is an instantaneous rise in the value of 25% of the currency C against the local currency. The scenario downward shock is an instantaneous fall of 25% in the value of the currency C against the local currency
	Concentration	The scope of this risk sub-module extends to assets considered under the equity risk and interest rate risk, and excludes assets covered under the counterparty default risk; stress applies to the exposure value in each category in excess of the threshold; property assets excluded due to current regulatory limits and hence lack of materiality; exclude Government bonds from the scope of this stress
<b>Counterparty Default</b>	Type 1: Reinsurers & Banks	Captures the change in solvency ratio due to default of counterparties, including reinsurers, banks, brokers, agents,
	Type 2: Other Counterparties	
	Mortality	Increase of 15% in mortality rates for each age and each policy where the payment of benefits (either lump sum or multiple payments) is contingent on mortality risk
	Lapse	5 percentage point yearly increase/decrease (the decrease has a floor of 0%) in lapse rate over that assumed
	Expenses	Increase in future inflation rate compared to best estimate assumption, where the Inflation Rate increases by 1 percentage point per annum over that assumed
<b>Non life Underwriting</b>	Premium Risk	Increase in the projected net loss ratio, with low volatility lines of business experiencing 10% percentage points increase and high volatility lines experiencing 20% percentage points increase
	Reserves Risk	Short fall in the net reserves, with short tail lines experiencing 10% shortfall and long tail lines experiencing 20% shortfall

### Scenario analysis

Scenario title	Scenario description
<b>Health Pandemic</b>	<p>Health Insurance:            2% of insureds are infected, of which            - 10% of insureds require Hospitalization            - 30% of insureds requiring Testing and Physician Consultation            25% of insureds get vaccinated</p> <p>Protection &amp; Savings Insurance:            0.06% of insureds die (where policy terms do not exclude death due to pandemic)</p>
<b>Natural CAT - Flood, hail etc.</b>	Cloudbursts over Jeddah city causing flooding affecting property and motor vehicles
<b>Manmade CAT - Energy</b>	Explosion and Fire in the oil refineries in the company's largest concentration of energy gross risk exposures (e.g. Ras Tanura) covered under a treaty (excluding facultative risks); consider both onshore and offshore exposures for identifying the largest concentration
<b>Manmade CAT - Property</b>	Consider a fire results in damage to the largest gross single property risk covered under a reinsurance treaty (excluding facultative risks) and in case if Health and P&S coverages apply to the same affected property, then there are 5% deaths and 25% injuries requiring hospital treatment
<b>Manmade CAT - Motor Liability</b>	Consider a major collision between your insured car and a passenger coach permanently disabling 5 passengers on board the coach. Assume coach passengers are European football league players travelling to a football match in Saudi Arabia; the football match gets cancelled as a result
<b>Manmade CAT - Marine</b>	A collision between an oil tanker and a cruise ship causing 50 deaths and 500 seriously injured people; the oil tanker is insured by your insurance company and is held responsible for the collision; all passengers of cruise ship are US citizens, so legal proceedings are held in US courts; the claims are in respect of marine hull and marine liability, including removal of wreckage and pollution
<b>Manmade CAT - Aviation</b>	<p>Assume a collision of two passenger aircraft with full occupancy over Riyadh airport. One aircraft belongs to Saudi Airlines and the other one belongs to Fly Nas.</p> <p>The collision causes 500 deaths (350 Saudia + 150 Fly Nas) and causes closure of Riyadh Airport for a number of days. The pilot of the aircraft insured by your company is held responsible for the accident.</p>

<p><b>Operational-cum-Cyber risk</b></p>	<p>Your insurance company's systems get attacked by a ransomware (e.g. WannaCry, Petya) by international hackers from outside the Kingdom, causing all systems to come to a halt and policyholder data to be accessed illegally. This happens during the peak of renewal period (e.g., in December). The systems remain down for two weeks, leading to loss of renewals/new business. Eventually, the systems get restored after payment of ransom.</p>
<p><b>Global recession</b></p>	<p>Low economic activity leading to lower oil demand, causing the oil price to drop, many government/private projects to stall, economic activities to slow down causing recession, mass exodus of expatriates from Saudi Arabia, liquidity severely affected, policyholders pursue claims vehemently, fraud activities increase, all affecting the revenue and claims of insurance companies</p>

**Appendix 2 - Solvency and Capital Template**

(attached)

**Kind Regards,**

**General Department of Insurance Control**

