

Circular No. ID 04/08

7 April 2008

To Principal Officers
All Life and Composite Insurers

Dear Sir/Madam

MAS NOTICE 312: STRESS TESTING OF LIFE DIRECT INSURERS:

- 1. REVISION OF PRESCRIBED SHORT TERM AVIAN FLU PANDEMIC STRESS TEST SCENARIO**
- 2. FINANCIAL CRISIS SCENARIOS**

Revision of Prescribed Short Term Avian Flu Pandemic Scenario

Paragraph 10(c) of MAS Notice 312 allows the Authority to prescribe short term scenarios for stress testing by all direct life insurers in addition to Short Term Scenarios 1 and 2 as prescribed in the Notice. For the stress test exercise as at 31 December 2006, the Authority had prescribed a short term scenario ("Short Term Scenario 3") based on an avian flu pandemic.

2 For the stress test exercise as at 31 December 2007, the Authority is prescribing two new short term scenarios based on an avian flu pandemic, called Short Term Scenario 3a and Short Term Scenario 3b, with assumptions reflecting results of more recent studies on the disease and its impact.

3 Taking into account factors such as advancements in the medical knowledge and treatment, improvement in hygiene and nutrition and more effective communication and alert systems, the mortality rate assumptions under Short Term Scenarios 3a and 3b have been set to an addition of 2.5 and 5.0 deaths per 1000 to the best estimate mortality rates across all ages, respectively. Short Term Scenario 3a assumes that a more effective medical intervention strategy is in place than that under Short Term Scenario 3b.

4 In addition, the following assumptions apply to both Short Term Scenarios 3a and 3b:

- i Assuming an infection rate of 30% across all ages, only one third of those infected will be hospitalised allowing for realistic potential hospital capacity levels in Singapore. As such, the hospitalisation claims incidence assumption has been set to an addition of 100 incidences per 1000 per year to incidence rates across all ages.

- ii Assuming that policyholders' behaviour will be rational, the assumption of the increase in termination rates for health, term life, whole life policies and other pre-dominantly protection policies will be 0% as these policies will be considered more valuable under an avian flu pandemic. On the other hand, the increase in termination rates for investment-linked policies, endowment policies and other pre-dominantly savings or investment policies is assumed to be 50% as some policyholders may liquidate their policies to obtain emergency cash to tide over an economic downturn which is likely to occur in a pandemic.

5 All other assumptions currently previously prescribed for Short Term Scenario 3 are incorporated into Short Term Scenarios 3a and 3b.

6 Appointed actuaries are required to run tests on Short Term Scenarios 3a and 3b which are prescribed in Annex A. Please note that each direct life insurer has the discretion to determine how the aforementioned scenarios have implications on other policies within its portfolio.

7 Please contact your company's liason's officer in MAS should you require further clarification.

Financial Crisis Scenarios

8 In the light of the recent turmoil in the global financial markets, actuaries are urged to ensure that the financial crisis scenarios selected for their stress test exercises are sufficiently robust, so that their companies' directors and senior management will be fully aware of any market and other financial risks which their companies are exposed to.

Yours faithfully

[sent via MASNET]

LOW KWOK MUN
EXECUTIVE DIRECTOR
INSURANCE SUPERVISION DEPARTMENT

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Annex A

Short Term Scenarios

Additional prescribed Scenario 3a:

- (a) +5.0 deaths per 1000 to mortality rates across all ages;
- (b) +100 hospitalisation claims incidence per 1000 to rates across all ages;
- (c) 0% increase in termination rates for health, term life, whole life and other pre-dominantly protection policies, and 50% increase for investment linked, endowment and other pre-dominantly savings or investment policies;
- (d) 25% decrease in reinsurance recoverables;
- (e) 20% decrease in new business premiums;
- (f) 30% decrease in equities and properties;
- (g) +200 bps for “A” rated credit spread and +300 bps for other rating credit spread;
and
- (h) -100bps yield curve shift for risk free rate up to 1 year, +100 bps yield curve shift for risk free rate up to 10 years and above, and linear interpolation between 1 and 10 years for other tenors

Additional prescribed Scenario 3b:

- (a) +2.5 deaths per 1000 to mortality rates across all ages;
- (b) +100 hospitalisation claims incidence per 1000 to rates across all ages;
- (c) 0% increase in termination rates for health, term life, whole life and other pre-dominantly protection policies, and 50% increase for investment linked, endowment and other pre-dominantly savings or investment policies;
- (d) 25% decrease in reinsurance recoverables;
- (e) 20% decrease in new business premiums;
- (f) 30% decrease in equities and properties;
- (g) +200 bps for “A” rated credit spread and +300 bps for other rating credit spread;
and
- (h) -100bps yield curve shift for risk free rate up to 1 year, +100 bps yield curve shift for risk free rate up to 10 years and above, and linear interpolation between 1 and 10 years for other tenors