

THE INSURANCE ACT

REGULATIONS
(under section 144)THE INSURANCE (ACTUARIES) (LIFE INSURANCE COMPANIES)
REGULATIONS, 2001

*(Made by the Commission with the approval of the Minister on the
31st day of December, 2001)*

L.N. 200/2001

1. These Regulations may be cited as the Insurance (Actuaries) (Life Insurance Companies) Regulations, 2001.

Citation.

2. In these Regulations—

Interpretation.

“actuary” means a person who is a fully qualified professional member of an actuarial body accredited by the International Actuarial Association and recognized by the Commission;

“annual filing” means the annual financial statements required by the Act to be deposited with the Commission, together with report (s) from the actuary;

“appointed actuary” means an actuary appointed by registered insurer pursuant to section 44(1) of the Act;

“conflict of interest” means a situation which occurs when an actuary’s duties to the insurer or statutory duties come into conflict with the actuary’s personal interests or with the duties of the actuary to another party;

“guaranteed benefits” means guaranteed—

- (a) death, endowment, annuity, disability, and health care expense benefits;
- (b) cash surrender and other non-forfeiture benefits;
- (c) conversion, renewal and option to purchase insurance rights;
- (d) settlement options which are not fully self-supporting; and
- (e) benefits of any other kind under the terms of the policy;

“policy benefit liabilities” means all liabilities related to policy payments after the valuation date, including those in respect of events which occurred before the valuation date, but excluding any appropriations of surplus;

“policy payments” means payments of—

- (a) guaranteed benefits;
- (b) policyholder dividends;
- (c) non-guaranteed non-forfeiture benefits;
- (d) benefits which have become established concessions;
- (e) issue, administrative and investment expense; and
- (f) all cash flows resulting from any reinsurance agreement in effect for the policy;

“policyholder dividends” means all distributions to participating and nonparticipating policyholders such as dividends, experience refunds or excess interest credits according to the company’s current scale (or another scale if that scale better reflects the company’s philosophy and projected operating environment);

“policy premiums” means premiums or other revenues payable under a policy;

“policy premium method” means a method of computing policy benefit liabilities, which uses the full amount of the policy premiums stipulated in the related insurance policies (the actual premiums), and the policy payments (without arbitrary limitation on expenses), such that the net present value of these elements, after providing for adverse deviations, is the policy benefit liability.

Verification of
data.

3.—(1) In performing his functions in relations to an insurer in accordance with the Act, the Insurance Regulations, 2001 and these Regulations, the actuary shall—

- (a) ensure that he is familiar with the procedures for the administration and accounting of the insurer’s business;
- (b) establish suitable control procedures—
 - (i) to verify that the valuation data for both assets and liabilities are consistent with the terms of the insurer’s insurance, annuity and commission contracts;
 - (ii) in relation to the deeds, contracts and documents of title that support its investments, other source data, the record keeping system and the insurer’s accounting practices, and make any appropriate adjustments.

(2) The actuary may rely on an independent accountant or external auditor for the accuracy of the data used in the valuation but if the actuary has any doubts regarding the accuracy of the data, he shall disclose any reservations in the actuary’s report to the Commission.

- (3) The actuary shall take such steps as are necessary to—
- (a) verify that the assumptions and methods used in the calculation of the policy liabilities and the corresponding results are consistent with the valuation basis selected by the actuary; and
 - (b) ensure that any errors in the valuation system are corrected and shall put in place appropriate measures to detect such inconsistencies and errors.
- (4) The actuary shall verify the consistency of the current valuation data with the previous valuation data with the financial statements and the records of policy movements.

4.—(1) The actuary shall determine the policy benefit liabilities for all the policies in force as at the valuation date.

Valuation of
policy
benefit
liabilities.

(2) The actuary may, subject to paragraph (3), determine the liability by any method in accordance with these Regulations, generally accepted accounting principles and generally accepted actuarial practice.

(3) If the provisions of these Regulations specifically differ from generally accepted actuarial practice, then those provisions shall apply.

(4) Any material change in methods from the prior valuation shall be disclosed in the published financial statements and in the actuary's report to the Commission.

(5) The actuary shall reflect any similarity between two classes or generations of policies in the methods used for those classes or generations.

(6) For the purposes of this regulation, the policy benefit liability for each policy payment resulting from events occurring before the valuation date is equal to its present value at the valuation date, including—

- (a) any interest guaranteed or expected to be credited to it; and
- (b) administrative expense, excluding the reinsured portion.

(7) Where the gross premiums payable after the valuation date are not fixed by the terms of the policy, the actuary shall assume a scale of gross premiums which makes provision for adverse deviations.

(8) The policy benefit liability for a non-participating policy is the present value at the valuation date, determined in accordance with the formula "a—b", as follows, where—

- a. = its policy payments after the valuation date; and
- b. = its valuation premiums, if any, payable after the valuation date.

(9) The minimum policy benefit liability for a participating policy

shall be the liability determined by—

- (a) the method specified in section 44(4) of the Act, ignoring policyholder dividends; and
- (b) assumptions appropriate to a comparable non-participating policy having the same gross premiums and policy payments but no policyholder dividends.

(10) The gross policy benefit liability for a participating policy shall be the liability determined by—

- (a) the method specified in section 44(4) of the Act, taking account of policyholder dividends, reduced as provided in paragraph (11);
- (b) using gross premiums as valuation premiums; and
- (c) assumptions appropriate to a participating policy.

(11) The policyholder dividends shall be reduced by the portion thereof determined in accordance with the formula “a., b., and c.”, as follows, where—

- a. is the net investment earnings in the participating branch other than those assumed in determining the policy benefit liabilities;
- b. is the net income from benefits in the participating branch for which no specific policyholder dividend is determined; and
- c. is amounts in other branches.

(12) The total policy benefit liability for participating policies shall, subject to paragraph (13), be the greater of the formula “a. and b.” as follows, where—

- a. = the aggregate of their minimum policy benefit liabilities; and
- b. = the aggregate of their gross policy benefit liabilities.

(13) Where b. exceeds a., the total policy benefit liability shall be a., and the excess of b. over a. shall be disclosed as an additional provision for policyholder dividends in the Annual Filing and in any published financial statements.

Determination
of
assumption.

5.—(1) The assumptions to be employed in the valuation of the policy benefit liabilities shall be appropriate to the circumstances of the company and the policies in force.

(2) The appointed actuary’s responsibility to select assumptions appropriate for the portfolio being valued shall not be affected by the capital and surplus requirements.

(3) For the purposes of this regulation, the assumptions selected

shall be appropriate to the total circumstances of the company as assessed by the actuary at the valuation date, including expected experience, the method of valuing assets, statutory constraints on the valuation of policy benefit liabilities, and the release of surplus.

(4) The actuary shall make an appropriate assumption about each contingency which materially affects the company's net income for the policies in force over their lifetime.

(5) The actuary shall not make the same assumption for two policies unless it is expected that their experience for that assumption will be similar.

(6) The actuary shall give more careful study to those assumptions to which policy benefit liabilities are more sensitive.

6.—(1) Assumptions shall be determined prospectively at each valuation date in the context of the current experience.

Change in assumptions.

(2) In determining assumptions, the actuary shall reflect improvements or deterioration in experience, if such changes are statistically significant and material.

(3) Except as provided in paragraphs (4) and (5), the effect of a change in assumption shall not be spread over more than one valuation.

(4) Where the change in the environment or in emerging experience is occurring in an uncertain manner, the actuary may conclude that, based on currently available data, only part of the observed change should be reflected in the current valuation assumption, and that the balance should be reflected in a future valuation to the extent that further data develops to confirm the observed change in experience or environment.

(5) The deferral of part of the change in a valuation assumption is only appropriate where the change results in a reserve weakening.

7.—(1) Where—

- (a) the assumptions differ from those in the prior valuation;
- (b) the difference applies to policies having material policy benefit liabilities at the prior valuation; and
- (c) the effect of the difference is material at the valuation, then the proper charge on account of the policy benefit liabilities for those policies shall be separated into a regular charge and an unusual charge.

Disclosure of effect of change.

(2) The regular charge referred to in paragraph (1) (c) is equal to the formula "a.—b.", where—

- a. = the policy benefit liabilities at the valuation date using the assumptions of either the current valuation or the prior valuation; and
- b. = the corresponding liabilities at the prior valuation date.

(3) Where a. and b. are determined using the assumptions of—

- (a) the current valuation, the unusual charge shall be determined in accordance with the formula “b.—bb.”;
- (b) the prior valuation date, the unusual charge shall be determined in accordance with the formula “aa.—a.”, as follows, where—
 - aa. = a., but determined using the assumptions of the valuation date; and
 - bb. = b., but determined using the assumptions of the prior valuation date.

(4) If either of the methods described in paragraph (3) is selected for reporting, it shall be applied consistently for all future reporting.

(5) Each assumption is a combination of the expected experience and a provision for adverse deviations and although the actuary may use the combination in calculating the policy benefit liabilities, where feasible the expected experience and the provision for adverse deviations should be separated.

Expected
experience.

8.—(1) The actuary should discuss current and projected company policy with officers responsible for investments, underwriting, claims, marketing, pricing, policyholder dividends, and administration.

(2) Where it is indicative, the actuary shall, for each assumption, study the available recent experience of the business in force and the most comparable recent published industry experience.

(3) If credible local industry experience is not available, the actuary may use relevant experience data from another jurisdiction.

(4) The actuary should not assume that expected experience is more favourable than industry experience except to the extent of statistical evidence.

Anti-
selection.

9.—(1) Where a policyholder may create, prolong, or stop a policy benefit, the actuary should assume that policyholders who benefit from doing so will tend to act to the company’s detriment.

(2) Where the company’s reinsurance assumed may be recaptured, the actuary shall assume that a ceding company who benefits from doing so will tend to act to the accepting company’s detriment.

10.—(1) For the purpose of providing for adverse deviations, the actuary shall have regard to the fact that—

Provision for
adverse
deviations.

- (a) it is not possible to determine expected experience with complete confidence; and
- (b) actual experience may be better or worse than expected experience,

and accordingly, shall define a margin for adverse deviation in each assumption to add a provision to the liabilities.

(2) The provision so added shall be appropriate for income statement purposes and to the company's circumstances.

(3) For each assumption, the margin shall—

- (a) be for the mis-estimation of the mean and for the possible deterioration thereof;
- (b) not cover statistical fluctuation, catastrophic or similar major unexpected events.

(4) The actuary shall take into account the following principles—

- (a) overall, the margin for adverse deviations should increase the liabilities as follows—
 - (i) for each critical assumption, the margin should increase the liabilities;
 - (ii) for other assumptions, the margin should increase the liabilities unless it is not compatible with the margin of the critical assumptions;
- (b) the margin should be greater when there is—
 - (i) less confidence in the realization of the expected experience;
 - (ii) there is a stronger possibility of deterioration of the mean (such as when the assumed event is farther in the future);
- (c) the internal practices of the company such as underwriting, matching, immunization and the policies' own characteristics, such as policies exposed to anti-selection, should be taken into consideration;
- (d) subject to sub-paragraphs (a) to (c), the margin should be consistent among generations of policies and consistent among lines of business;

- (e) the provision for a participating policy may be less than the margin for a comparable non-participating policy by an amount which depends on—
 - (i) the size of the policyholder dividends; and
 - (ii) how readily the company will adapt its dividend scale to changing conditions;
- (f) the provision in the company's assumption for premium rates is not appropriate for valuation purposes;
- (g) the provision for adverse deviations included in the policy benefit liability is not sufficient for solvency purposes.

Investment
return.

11.—(1) The actuary should base the investment rate of return on the method—

- (a) of reporting investment return and valuing assets in the annual filing; and
- (b) by which the company is expected to allocate investment return and explicitly or implicitly to allocate assets among classes of policies.

(2) The investment rate of return of a class of policies depends on—

- (a) the projected rate of return on its assets at the valuation date;
- (b) where cash flow is expected to be positive, the expected new money rate of return on its assets acquired after the valuation date;
- (c) where cash flow is expected to be negative, the expected capital gains or losses on its assets disposed of after the valuation date;
- (d) its expected investment tax rates;
- (e) its expected investment expense rates;
- (f) its expected losses from default; and
- (g) the provision for adverse deviations.

(3) For new money investment rates, the actuary shall make a provision for adverse deviations which reflects the fact that no one can with any confidence predict new money rates beyond a short time following the valuation date.

(4) Provision for adverse deviations shall reflect the company's ability and willingness to compensate for an adverse deviation by a reduction in policyholder dividend scales, experience rating formulae, or excess interest credits.

(5) The actuary shall assume that borrowers and policyholders who will benefit from doing so will tend to exercise their contractual options to

the company's detriment.

(6) Where the projection of cash flow requires a projection of new business, the actuary shall not, without an explicit reason, assume a change in its recent composition or rate of growth which reduces the policy benefit liabilities.

(7) The actuary need not verify the existence and the ownership of the assets owned at the valuation date and the assumption should be based upon the characteristics of the assets and the actuary's appraisal of their quality.

12.—(1) The actuary should make assumptions for the rate of the following expenses— Expenses.

- (a) investment expense, which is the expense allocable to the investment and safekeeping of assets;
- (b) issue expense, which is the expense incurred for the production of new business, being the sum of—
 - (i) the expense payable at and after issue as a direct result of the issue of policies; and
 - (ii) the expense payable before issue which directly results in the issue of policies;
- (c) administrative expense which is the expense allocable to the maintenance and servicing of policies, including claims adjustment expenses (claims handling expenses) premium taxes and charges for licences and government supervision, but excluding investment expense and issue expense.

(2) Under the policy premium method, only investment and administrative expenses which will be incurred after the valuation date are recognized in the valuation and those expenses for which there is a cause-and-effect relationship to the production of new business (issue expenses) are excluded.

(3) Any commission-related expenses that are incurred after the valuation date (renewal commissions) shall be considered as administrative expenses.

(4) Issue expenses shall not be overstated to the extent that future administrative expenses would thereby be understated.

(5) In determining the policy benefit liabilities the actuary shall not take account of the other types of expense which the company incurs.

(6) In making the investment and administrative expense assumption, the actuary shall assume—

- (a) that a company which is, which intends to remain, and can remain, open to new business continues as such;
- (b) that a company which is closed to new business continues as such and as a going concern until such time as it is desirable and practical to reinsure the policies in force, or to amalgamate the company into another company;
- (c) in any other case that the company presently becomes closed to new business, incurs transitional administrative expenses during a period of retrenchment, and thereafter operates as described in paragraph (b).

Mortality
and
morbidity
assumptions

13.—(1) The actuary shall make assumptions on mortality and morbidity where appropriate and shall select credible mortality and morbidity tables for the base assumption as follows—

- (a) for life and health insurance, mortality or morbidity rates lower than the base table (before margins for adverse deviations) must be supported by statistically valid company or inter-company experience studies; and
- (b) for annuity products, mortality rates higher than the base table (before margins for adverse deviations) must be supported by statistically valid company or inter-company experience.

(2) Any expected effects of anti-selection on mortality or morbidity shall be taken into account before the application of a margin for adverse deviation.

(3) Mortality rates for life insurance products shall not reflect an assumption of trends (either deterioration or improvement) beyond the valuation date but annuitant mortality may reflect long-term mortality improvements if indicated.

Lapse rates
and partial
withdrawals.

14.—(1) The actuary shall make assumptions on lapse rates or partial withdrawals or both, where the insurer is exposed to risk from the fact that the policyholder has the option to withdraw or persist, or to select the timing or amount of withdrawal.

(2) The actuary shall base the assumptions on—

- (a) recent experience studies of the in-force business;
- (b) product features which are likely to affect the lapse; and
- (c) external factors such as industry conditions and the economy.

(3) For newer products where reliable experience data may not be available, the actuary shall adopt a more cautious approach in selecting the expected assumptions.

15.—(1) The actuary shall not adopt the theory mentioned in paragraph (2) for a policy whose policy benefit liabilities appear to be more sensitive to the inflation rate assumption than to the investment return rate assumption but the actuary shall assume that inflation continues indefinitely.

Inflation rate
and investment
return rate.

(2) The theory referred to in paragraph (1), is that new money investment return rate tends to be correlated with the inflation rate.

16. The Dynamic Capital Adequacy Testing (DCAT) Report shall be prepared in accordance with these Regulations and be submitted to the Board of Directors and the Commission as soon as available but no later than the Annual Filing.

Dynamic
capital
adequacy
testing

17.—(1) The actuary shall establish a set of criteria for solvency appropriate to the company, and base the investigation and report on those criteria.

Investigation

(2) For the purpose of paragraph (1), solvency involves the applicable regulatory standard or industry formula relating to minimum continuing capital and surplus.

(3) The actuary's annual investigation of the company's solvency shall—

- (a) consider the past, present and future financial positions of the company and the sensitivity of surplus to changes in various experience factors and management policies;
- (b) include both the business in force and anticipated new business; and
- (c) include a review of the financial results and surplus levels of the three most recent years and projections of the company's operations under a variety of scenarios, including a base scenario using the actuary's best estimate of future experience and a number of adverse scenarios designed to investigate the company's sensitivity to various threats.

(4) In determining the type and extent of the investigation, the actuary shall consider the likely material impact of potential threats to the future financial position of the company and usefulness of the resulting information.

(5) For the purposes of paragraph (4), the actuary shall establish standards of materiality applicable to investigating solvency.

(6) In assessing whether a potential threat is likely to have a material impact on the company's solvency, the actuary shall consider all relevant characteristics of the company, including—

- (a) the risk profile of each of its businesses;
- (b) the current adequacy of surplus;
- (c) its preparedness to detect changes in experience;
- (d) its ability and willingness to implement changes in key management policies, such as pricing for new business and adjustable premium renewing business, policyholder dividends, underwriting and investments.

(7) The actuary shall not use a comfortable surplus level to justify doing little or no investigation but shall develop and maintain informed judgment about how much is comfortable and how quickly surplus can be depleted.

(8) The actuary shall conduct a thorough investigation of a company—

- (a) that is actively soliciting new business;
- (b) when any other significant change in the portfolio or the direction of the company is occurring;
- (c) when the business environment is volatile; or
- (d) when any significant potential threat to solvency was reported in the previous year.

(9) All the assumptions in the base scenario shall, as far as practicable, be consistent with each other.

(10) Where the actuary's best estimate of future experience differs materially from those on which the company's business plan is based, the actuary shall—

- (a) perform projections under both sets of hypotheses and determine whether the base scenario should reflect the actuary's best estimate or the company's plan;
- (b) disclose in the report which basis was chosen for the base scenario and include a discussion of the points of variance and their relative significance.

Initial testing.

18.—(1) Investigation of adverse scenarios shall commence with consideration of simple tests of possible adverse trends in a single assumption, including those scenarios listed in paragraph (3) (hereinafter referred to as "prescribed scenarios") which cover the basic sources of potential threat to a company's financial position.

(2) The actuary shall include such of the prescribed scenarios in the investigation, as may be applicable to the circumstances and may adjust specific rates of deterioration according to the actuary's judgement in order to produce a more meaningful test.

(3) The prescribed scenarios are as follows—

(a) worsening mortality and morbidity rates, as follows—

- (i) for insurance products, mortality rates increase by three per cent of the base rate per year for five years;
- (ii) for annuity products, mortality decreases by three per cent of the base rate per year for five years;
- (iii) for products involving morbidity, morbidity rates increase by three per cent of the base rate per year for five years;

(b) worsening withdrawal rates based on the assumption that withdrawal rates in each of the projection years will be either twice or one-half of the rates assumed in the base scenario, whichever is more unfavourable for the particular product;

(c) increasing interest rates, based on the assumption that new money interest rates increase by one per cent per year for five years, for a total increase of five per cent and the shape of the yield curve, and the company's investment policy, remain as they are in the base scenario;

(d) decreasing interest rates based on the assumption that new money interest rates decrease by one per cent per year for five years, for a total decrease of five per cent and the shape of the yield curve, and the company's investment policy, remain as they are in the base scenario;

(e) new sales are assumed to continue at the same level experienced by the company in its most recent completed year;

(f) new sales are assumed to grow at twice the growth rate assumed in the base scenario;

(g) increased expense rates based on the assumption that in each of the projection years, unit expenses are assumed to increase at a rate which is five per cent greater than the expense inflation rate assumed in the base scenario;

(h) no appreciation in the market value of real estate and equities is assumed in each of the projection years.

(4) Following the initial testing of adverse trends in single

assumptions, the actuary shall investigate such additional scenarios as are necessary to reflect the particular circumstances of the company, and to explore sensitivities further.

(5) Additional scenarios will normally be chosen with one or more of four objectives in mind, as follows—

- (a) the prescribed scenarios listed in paragraph (3) will not always provide a sufficient starting point for further investigation;
- (b) the actuary—
 - (i) needs to be more knowledgeable about those adverse trends considered more likely to occur or to be more significant for the company;
 - (ii) may be concerned that the magnitude of the deviation in a particular scenario may not be a suitable indicator of the true sensitivity to that assumption;
 - (iii) may believe that a single test is inadequate to depict the true sensitivity if it is suspected that the relationship between changes in the assumption and the resulting surplus level is not close to linear;
- (c) the impact on the projected surplus of adverse deviations in more than one assumptions occurring at the same time may be more than the sum of the impacts of the individual deviations and some assumptions are normally interrelated, and their combined effect should be studied;
- (d) having identified a significant threat to the company's solvency, the actuary will normally try a variety of scenarios to see if there is a way to mitigate the risk and in doing so, the actuary may consider varying such matters as the growth rate of new business, the investment policy and the practice on adjusting premiums or dividends.

(6) The projection period may be chosen to be consistent with the company's internal business planning horizon but, in choosing the period, the actuary shall ensure that it is sufficient for the impact of adverse trends in assumptions in the various scenarios to be observed.

(7) The requirement as to the choice of the projection period in paragraph (6) will normally be satisfied by a projection period of five years but when all material lines of business have short time horizons and little long-term risk, a shorter projection period may be justified.

(8) Throughout the projection period, the determination of valuation assumptions and the valuation method shall, as far as possible, be consistent

with that of the most recent valuation, or where possible, the actuary's intended approach to the next valuation.

(9) The valuation assumptions in the projection period shall reflect the emerging experience within the scenario so, however, that it will normally be sufficient for the actuary to defer any change in assumptions to the end of the projection period, to avoid undue complexity, since the ending surplus position will generally be of most interest. The distortion in the timing of earnings during the projection period, which this simplification causes, should be kept in mind. When the adequacy of the surplus position throughout the projection periods is of interest for a given scenario, a more refined approach to the change in valuation assumptions may be required.

(10) The actuary shall choose a method of projection that is applicable to the circumstances of the company.

19.—(1) The actuary should provide a written report each year to the Board of Directors, or its designate, outlining the investigation performed and presenting the significant findings and conclusions. Report.

(2) The purpose of the report is to warn the board about material, plausible and imminent threats to the company's solvency and where possible, the report shall describe possible courses of action for the company's consideration in addressing the threats.

(3) The report to the board shall—

- (a) be an interpretative report of the underlying results;
- (b) be structured in a fashion that allows for concise, yet meaningful, summaries to be delivered to the board;
- (c) highlight those findings that are significant with respect to threats to solvency;
- (d) discuss the projected impact of realizing the current business plan;
- (e) describe the current investigation performed and disclose the degree of reliance on previous years' work or on other sources of information;
- (f) confirm compliance with these Regulations and any other professional standards;
- (g) disclose any unusual or unforeseen circumstances that make certain professional standards inapplicable or inappropriate for any material blocks of business.

(4) The actuary may also disclose potential favourable trends in the report.

(5) The actuary may, if he thinks fit, present the results of the investigation to the company management as well as to the board containing such details as the actuary considers necessary.

(6) A copy of the report shall be submitted to the Commission on or before the submission of the Annual Filing.

(7) The actuary shall keep detailed documentation of the work performed, including documentation of—

- (a) the methods, assumptions used and the numerical results of all the scenarios tested;
- (b) the justification for not testing certain risks or blocks of business judged to be immaterial.

Minimum continuing capital and surplus requirement.

20.—(1) The minimum continuing capital and surplus requirement (MCCSR) return shall be prepared in accordance with the Commission's guidelines, and be submitted to the Commission with the Annual Filing.

(2) The actuary shall confirm that the guidelines have been followed.

Calculation of MCCSR.

21.—(1) The MCCSR shall be calculated using the MCCSR guideline issued by the Commission and updated periodically by the Commission to take into account emerging risks and industry experience.

(2) The minimum MCCSR percentage required to be held by insurance companies shall be transitioned in as follows—

Financial Year End	Minimum Percentage
2001 — 2003	100%
2004 — 2005	110%
2006 — 2007	120%
2008 — 2009	135%
2010 and on	150%

(3) Any life insurance companies not meeting these minimum percentages shall be subject to closer supervision by the Commission.

(4) The actuary shall submit the MCCSR calculation (in printed and electronic form) to the Commission with the Annual Filing.

(5) The insurance company shall immediately notify the Commission if there is reason to believe that the insurance company would fail the MCCSR requirement and the notice shall be accompanied by a plan of action to restore the required surplus position of the company.

(6) The form of the statement required by paragraph (2), confirming

that the Commission's guideline has been followed may be as follows—

CONFIRMATION OF MCCSR INSTRUCTIONS

I, **Actuary Name**, Appointed Actuary of **Company Name**, **Address of Company** hereby affirm that the instructions of the Commission have been followed in the calculation of the Minimum Continuing Capital and Surplus Requirement.

Signature of the Actuary

Date

The words in bold should be adapted to the situation.

22.—(1) Where a Report of the appointed actuary is included in the annual financial statements for the operations of a registered life insurance company and is presented at its Annual General Meeting or intended for the information of the shareholders, policyholders, or general public, it may be prepared using the following format—

Form of
report included
in annual
financial
statements, etc.

REPORT OF THE APPOINTED ACTUARY

I have examined the financial condition and valued the **policy benefit liabilities of ABC Life Insurance Company for its balance sheet as at 31 December, 200 []** and the corresponding change in the policy liabilities in the **statement of operations** for the year then ended. I meet the appropriate qualification standards and am familiar with the valuation and solvency requirements applicable to life insurance companies in Jamaica. (I have relied upon **XYZ company officer or accounting firm** for the substantial accuracy of the in force records and information concerning other liabilities, as certified in the attached statement).

In my opinion:

- (i) the methods and procedures used in the verification of the valuation data are sufficient and reliable and fulfill acceptable standards of care;
- (ii) the valuation of actuarial and other policy liabilities has been made in accordance with generally accepted actuarial practice with such changes as determined and directions made by the Commission;
- (iii) the methods and assumptions used to calculate the **actuarial and other policy benefit liabilities** are appropriate to the circumstances of the company and of the said policies and claims;

- (iv) the amount of the **policy benefit liabilities** represented in the balance sheet of **ABC Life Insurance Company** makes proper provision for the future payments under the companies policies and meet the requirements of the Insurance Act and other appropriate regulations of Jamaica;
- (v) a proper charge on account of these liabilities has been made in the **statement of operations**;
- (vi) there is sufficient capital available to meet the solvency standards as established by the Commission.

Name of Appointed Actuary	Signature of Appointed Actuary	Date
<Insert name, title and qualification>		

(2) The following provisions shall apply in relation to the form of the report—

- (a) if the report does not cover all of the policy benefit liabilities, then the expression “policy benefit liabilities” should be replaced with an appropriate phrase which defines the portion of them covered in the report;
- (b) the actuary should delete the references to statement of operations (or income statement) where the financial statements do not include one. The words in bold should be adapted to the situation of the actuary;
- (c) the bracketed wording should be omitted if the actuary does not rely on another party for the accuracy of the data;
- (d) the following opinion statements may be omitted under certain circumstances: opinion (i) should be omitted if the actuary relies on another part to verify the accuracy of the data, and opinion (v) should be omitted if there is no printed statement of operations. All other opinion statements are mandatory. If the actuary cannot opine on a particular matter or does not agree with the opinion statement for a particular set of circumstances, then the opinion should be withheld or a qualified opinion given. In this case, additional disclosure on the circumstances is required;
- (e) the opinion given in the published financial statements should also apply to the Report to the Commission. This report should be attached to the Report to the Commission.

(3) Where the actuary relies on an independent accountant or

external auditor for the accuracy of the data used in the valuation, the actuary shall obtain a signed statement from the accountant or auditor and submit it to the Commission in the following format—

STATEMENT OF ACCURACY OF POLICY RECORDS

I, Accountant or Auditor Name, Title of Company Name, Address of Company hereby affirm that the listings and summaries of policies and contracts as of **31 December, 2001**, prepared for and submitted to **Actuary Name** are to the best of **my/our** knowledge and belief, substantially accurate and complete.

Signature of the Accountant, Auditor or Accounting Firm

Address of the Accountant, Auditor or Accounting Firm

The words in bold should be adapted to the situation.

(4) In signing the opinion, the actuary shall identify his connection with the company, actuarial qualifications and, if desired any other professional qualifications.

(5) The actuary shall file a copy of the report with the auditor, where one has been appointed to report on the published financial statements, and a copy with the Board of Directors and the filing shall include the amounts determined by the actuary.

(6) The actuary's report shall contain a correct and clear presentation of the items which the actuary values for the financial statements and of any unusual situations in connection with them, including—

- (a) surplus appropriated on the actuary's advice;
- (b) off-balance-sheet obligations such as those taken into account in figuring a life insurance company's minimum continuing capital and surplus requirement;
- (c) restatement of items for preceding accounting periods;
- (d) the impracticality of restating any items which are reported in current period financial statements and which were reported inconsistently in preceding period financial statements;
- (e) inconsistency among accounting periods;
- (f) an unusual relationship between the items in current period financial statements and the expected corresponding items in future period financial statements;
- (g) a change in the method of valuation which does not have a material effect in the current accounting period but which is

- expected to have a material effect in future accounting periods;
- (h) a difference between the company's present practice and that which the actuary assumed in making the valuation;
 - (i) a subsequent event, being an event occurring between the balance sheet date and the date of the actuary's report which is not anticipated in the valuation but which affects cash flow after the balance sheet date or the company's ability to meet its obligations to its policyholders;
 - (j) allocation of expense and investment income to a participating account (if disclosed in the financial statements) other than in accordance with a method approved by the actuary and the board of directors.

(7) If additional disclosure is required for any circumstance, then the disclosure note shall—

- (a) describe the situation;
- (b) state its effect on reserves, surplus, and net income for the current year and each past year reported on in the financial statements; and
- (c) indicate its projected future financial effect.

(8) The note should use the ordinary dictionary meaning of words and avoid unnecessary jargon. Matters covered by a note that do not lend themselves to an unqualified assertion of fact should be qualified by words such as "in the opinion of the actuary" or "in my opinion".

Actuary's
Report to the
Commission.

23.—(1) The actuary shall, in his report to the Commission, identify any information which publication would, in the actuary's opinion, be injurious to the company's competitive position.

(2) The actuary may use terminology and formulae which will be understood by another actuary, but which need not necessarily be understood by a layman.

(3) When the actuary uses a term defined in these Regulations, it shall have the same meaning unless otherwise specified.

(4) Matters in the report which do not lend themselves to an unqualified assertion of fact should be qualified by words such as "in my opinion".

- (5) The report shall—
- (a) be prepared in accordance with the format outlined in this regulation;
 - (b) state the sections of the report that are not applicable to the inforce business of the company;

(c) be prefaced by the following exhibits in the format set out in the Schedules in relation to items (iv) - (x)—

- (i) Report for Published Financial Statements;
- (ii) Minimum Continuing Capital and Surplus Requirement (MCCSR) Calculation and Confirmation of Instructions;
- (iii) Dynamic Capital Adequacy Test (DCAT) Report (if not previously sent to the Commission);
- (iv) Compliance Checklist;
- (v) Conflict of Interest Statement;
- (vi) Item Reference;
- (vii) Actuarial Liabilities—Summary and Detailed;
- (viii) Exhibit on Cash Value Deficiencies, Negative Reserves and Other Reserves;
- (ix) Provisions for Adverse Deviations;
- (x) Changes in Actuarial Assumptions and Methods;

(6) The body of the report should contain at least the following matters—

- (a) executive Summary, which shall summarize the key findings of the report and any recommendations. The actuary should also highlight any information in the report which publication would, in the actuary's opinion, be injurious to the company's competitive position;
- (b) verification of Data, which is a statement of—
 - (i) the procedures used in the verification of valuation data;
 - (ii) the extent of the actuary's use of the work of the accountant, auditor or any other party (such as consultants);
- (c) methods employed in the valuation by line of business in accordance with these Regulations, and containing references to any deviations, the circumstances thereof and any pending application for a dispensation of the regulation, and, if applicable, the alternate methodology utilized in the valuation of the liabilities;
- (d) approximations and materiality, including a description of any approximations used in the valuation, and any materiality standard applied;

- (e) actuarial Liabilities by Line of Business as follows—
- (i) the actuarial liabilities by line of business as identified in the Schedules;
 - (ii) where significant blocks of business are held outside of Jamaica, a summary giving the proportion in force and liabilities (using PPM assumptions) by jurisdiction and by line of business;
 - (iii) a report of additional reserves required by other jurisdictions;
 - (iv) whether actuarial liabilities have been calculated by a seriatim, group or modelling method;
 - (v) within each line of business, the valuation of principal blocks of business having distinct valuation bases (ordered by size of blocks), sufficient to justify the conclusion reached, including details on the nature of the product, the gross and ceded volumes in force; the gross and ceded amounts of actuarial liabilities and supplementary actuarial requirements, the amounts for incurred but not reported liabilities (IBNR), and the method of computation;
- (f) assumptions which shall include the following—
- (i) details of levels of mortality, interest (including default), lapse, expense (including inflation) renewal, conversion, disability, recovery and other contingencies;
 - (ii) justification of all assumptions, with a separate description for assumptions of expected experience and the margin for adverse deviations;
 - (iii) justification of—
 - (A) a new assumption should include the reasons for selecting it and the tests of its appropriateness; and
 - (B) an assumption continued for the prior valuation should describe the study of its continued appropriateness, and the complexity of the determination, the sensitivity of the liability to changes in the assumption and the materiality of the policy benefit liability should govern the extent of the description and justification;

(g) matching of Assets and Liabilities, including—

- (i) a discussion on the procedure used to match assets and liabilities, including the assumptions used in developing cash flows, the allowance for expenses, and the frequency of the matching process;
- (ii) complete details on the level of segmentation used in the valuation of liabilities should be given;
- (iii) an illustration of the extent of matching portfolios by duration and yield, and comments on the level of immunization;
- (iv) descriptions on the sensitivity studies undertaken to measure the effect of changes in market interest rates, and shifts in the yield curve;
- (v) the controls that are in place to ensure the appropriateness of the type, duration, quality, and marketability of the assets held; and the provision made for the asset/liability mismatch (C3 risk);
- (vi) a table showing the net cash flows, produced by the matching process, for at least ten years from the valuation date;
- (vii) a breakdown of assets used to back each business segment and surplus;
- (viii) detail on the average duration of assets, by class;
- (ix) the use of any derivative instruments, stocks or real estate in the matching process;
- (x) detail as to whether or not the company actively trades assets, with references to the management and auditing procedures, and detail how these practices impact the valuation;
- (xi) full details on any switching of assets and where any switching of assets between surplus and liabilities, or between funds (par and non-par) is not done at market value, a report thereon, giving full explanations of its appropriateness;

(h) reinsurance, as follows—

- (i) a summary of all material or new reinsurance agreements, both assumed and ceded, including the effective and expected termination dates, the type of reinsurance, and a description of the products covered, and more detailed description in relation to

- any agreements covering more than fifteen per cent of the total in force, including amounts in force, and actuarial liabilities, on a gross and net basis, for new business;
- (ii) retention limits and any reinsurance with associated companies and a description of Stop Loss and Catastrophe arrangements;
 - (iii) the method of computing gross and net reserves for significant blocks of business subject to coinsurance, and treatment of expense sharing between the reinsurer and the direct writer;
 - (iv) where any reinsurance financing arrangement significantly alters the pattern of capital requirements, policy reserves, cash value deficiencies, or negative reserves, a discussion as to whether this arrangement involves a true transfer of risk to the reinsurer;
- (i) new or Special Risk Products, including—
- (i) brief discussion of the features of all new products;
 - (ii) where the product is novel (to the existing portfolio) or experimental, and relevant experience data is not available, an explicit identification of both the expected experience assumptions and the margins for adverse deviations;
 - (iii) if the new product involves new contingent events (such as long-term care, critical illness) a description of the work performed to measure the risk associated with this new contingency;
 - (iv) a discussion of any product, which in the actuary's opinion, exposes the company to excessive or any special risks;
- (j) cash Value Deficiencies and Negative Reserves, as follows—
- (i) a report on cash value deficiencies and negative actuarial liabilities on a policy-by-policy basis for each line of business, providing comparative figures, first year and renewal, for the prior year (see Appendix E) and identifying and supporting material changes (e.g. resulting from changes in assumptions);
 - (ii) cash value deficiencies representing amounts at risk

on early terminations (e.g. excess of expenses over surrender charges);

(k) capital adequacy and future financial position, as follows—

- (i) a summary of the key findings of these tests and recommendations in this section of the actuary's report;
- (ii) a discussion and summary of the exposure of the company to significant risks;
- (iii) discussion of asset default provisions and any asset concentration and quality issues;
- (iv) a comment on the quality and composition of assets allocated to surplus;
- (v) a description of the process used to measure and manage liquidity risk as well as any specific guidelines and targets established by management.

24.—(1) The Commission may reject assumptions and methods where it appears that the policy liabilities produced are inappropriate.

Review by
Commission

(2) The review of an actuary's report may take place over an extended period after filing, and the Commission may notify the actuary that supplemental detail is required to sufficiently assess the assumptions and methods.

(3) The actuary shall respond promptly to all supplemental requests.

(4) Working papers required to support the computation of the actuarial and other policy liability figures reported in the Annual Filing and the actuary's report shall be available at all times at the company's head office, and should be made available to the Commission upon request.

(5) Where the commission determines that the questioning of particular assumptions or methods do not sufficiently demonstrate the appropriateness of the policy liabilities produced, the Commission shall require the actuary to choose other acceptable assumptions or methods, and to re-compute the policy liabilities.

(6) In such a situation, the actuary shall re-file the actuary's report and the Commission may—

- (a) require the company to amend the Annual Filing; or
- (b) ask the company to reflect the changes in the Annual Filing for the following year.

(7) The Commission may in accordance with section 44(5) of the Act, request an independent actuary's report, if the Commission deems it necessary.

APPENDICES

A. COMPLIANCE CHECKLIST

ITEM	YES/NO	REPORT REFERENCE
The following items are attached to the Report to the Commission:		
Report for Published Financial Statements		
Minimum Continuing Capital and Surplus Requirement (MCCSR) Calculation and Confirmation of Instructions		
Dynamic Capital Adequacy Test Report (if not already sent to the Commission)		
Compliance Checklist		
Conflict of Interest Statement (if applicable)		
Item Reference		
Actuarial Liabilities—Summary and Detailed		
Exhibit on Cash Value Deficiencies, Negative Reserves and other Reserves		
Provisions for Adverse Deviations		
Changes in Actuarial Assumptions and Methods		
The following statement applies:		
The Actuarial Regulations, generally accepted accounting principles and generally accepted actuarial practice have been applied in the valuation of the policy benefit liabilities and in the preparation of the Report to the Commission.		

If the answer is "NO" to any of the items above, please provide further detail below:

B. CONFLICT OF INTEREST STATEMENT

I confirm that there exists a potential or actual conflict of interest between myself and my client or employer and/or a third party.

I confirm that there has been full disclosure of the potential or actual conflict to all parties involved (including the Commission), and that all parties have agreed that I may perform the duties of Appointed Actuary for my client or employer.

I confirm that my ability to act fairly and objectively is unimpaired, and that I have performed my duties as Appointed Actuary without regard to any personal considerations or to any influence, interest or relationship that may impair my professional judgement or objectivity.

Appointed Actuary

Date

C. ITEM REFERENCE

ITEM	YES/NO	REPORT REFERENCE
Did the Appointed Actuary rely on another party for the verification of data and/or assistance with the valuation?		
Was there any change in assumptions or methods?		
Was any application made to the Commission for a dispensation from the regulations?		
Were there any asset defaults during the past three years?		
Is there an asset/liability mismatch, and, if so, has a provision been made?		
Was there any significant active trading of assets in the last year?		
Was there any change in asset trading practices in the last year?		
Was there any switching of assets in recent years?		
Was there any significant new reinsurance in the past year?		
Is there any special reinsurance arrangement that significantly alters the pattern of capital requirements, policy reserves, cash value deficiencies or negative reserves specifically to reduce capital requirements?		
Are there any new or special risk products?		
Have cash value deficiencies and negative reserves been taken into account in the determination of surplus to be distributed to shareholders and/or policyholders?		
Is the company exposed to any significant liquidity risk?		

Insert "yes" or "no" in the second column, and the relevant page number of the report or "N/A" in the third column.

D. ACTUARIAL LIABILITIES—SUMMARY

(As Shown in the Annual Filing)

\$ thousands

		Current Year		Prior Year	
		Gross	Net	Gross	Net
Insurance					
Par	Individual				
	Group				
	Sub-total				
Non-par	Individual				
	Group				
	Sub-total				
Total Insurance					
Annuities					
Par	Individual				
	Group				
	Sub-total				
Non-par	Individual				
	Group				
	Sub-total				
Total Annuities					
Total Life Actuarial Liabilities					
Health					
Individual					
Group					
Total Health Actuarial Liabilities					

E. EXHIBITION ON CASH VALUE DEFICIENCIES, NEGATIVE RESERVES AND ADDITIONAL RESERVES

\$ thousands

	Current Year		Prior Year	
	First Yr.	Renewal	First Yr.	Renewal
Cash Value Deficiencies				
Calculated on a policy-by-policy basis				
Calculated on an aggregate (MCCSR) basis				
Negative Actuarial Liabilities				
Additional Reserves required by Other Jurisdictions				

P. PROVISIONS FOR ADVERSE DEVIATIONS

\$ thousands

Line of Business	Actuarial Liabilities (Net)	Provisions for Adverse Deviations						Report reference
		Interest	Mortality/Morbidity	Lapse	Expense	Asset Default	Total PAD	
Individual Life—par								
Group Life—par								
Individual Life—non-par								
Group Life—non-par								
Individual Annuities—par								
Group Annuities—par								
Individual Annuities—non-par								
Group Annuities—non-par								
Individual Health								
Group Health								
TOTAL								

Q. CHANGES IN ACTUARIAL ASSUMPTIONS AND METHODS

Plan or Block of Business with the same Valuation Basis and/or Report Reference	Report Reference	Prior Valuation Basis	Current Valuation Basis	Reason for Change	Impact of change: increase/decrease in actuarial liabilities ¹ (\$'000)
TOTAL					

¹ This amount should be the unusual charge calculated as per section 4.5