GUIDELINES ON VALUATION BASIS FOR LIABILITIES OF LABUAN GENERAL TAKAFUL BUSINESS

1.0 Introduction

1.1 The 'Guidelines on Valuation Basis for Liabilities of Labuan General Takaful Business' (the Guidelines) sets out prudential requirements that should be observed by Labuan (re)takaful operators in valuing liabilities of their general takaful business. The aim is to ensure those liabilities are reserved at a specified level of adequacy with explicit prudential margins.

1.2 The contract underlying takaful operations defines a unique relationship between takaful operator and participants of a takaful scheme. While takaful fund is responsible to meet contractual benefits accorded to participants on the basis of mutual assistance amongst participants, takaful operators are expected to duly observe fundamental obligations towards participants, particularly in terms of adhering to Shariah principles and undertaking fiduciary duties to prudently manage the takaful funds as well as meet costs involved in managing the takaful business.

1.3 In carrying out their fiduciary duty, takaful operators must put in place sufficient measures to ensure sustainability of general takaful funds to meet takaful benefits and shareholders' fund to support the takaful contracts for the full term. These measures include setting up of appropriate provisions for liabilities in shareholders' fund and on behalf of participants in general takaful funds, to ensure that adequate funds would be available to meet all contractual obligations and commitments as they fall due, with a reasonable level of certainty.

2.0 Applicability

2.1 The Guidelines is applicable to all Labuan takaful operators and Labuan insurers that underwrite general takaful business licensed or approved under Part VII of the Labuan Islamic Financial Services and Securities Act 2010 (LIFSSA) excluding Labuan captive takaful business.

2.2 For the purpose of the Guidelines, the term ‘Labuan takaful operator’ includes Labuan retakaful operator undertaking general retakaful business as well as Labuan insurer approved to carry out general takaful business or Labuan reinsurer approved to carry out general retakaful business.

2.3 With the implementation of the Guidelines pursuant to paragraph 4.1, the Clarification Note for Guidelines on Valuation Basis for Liabilities of Labuan General Insurance Business and Guidelines on Valuation Basis for Liabilities of Labuan General Takaful Business dated 11 December 2017 shall be superseded.

3.0 Legal Provision

3.1 The Guidelines is issued pursuant to Section 4A of the Labuan Financial Services Authority Act 1996 (LFSAA) for the purpose of clarifying the requirements on margin of solvency for Labuan takaful operators under Section 84 of the LIFSSA.

3.2 Any person who fails to comply with the Guidelines may be subject to an administrative penalty under Section 36B and Section 36G of the LFSAA or Section 148 and Section 154 of the LIFSSA and/or other enforcement actions provided under the LFSAA and the LIFSSA.

4.0 Effective Date

4.1 The Guidelines shall come into effect from financial year beginning on and after 1 January 2023; and would remain effective as well as applicable unless amended or revoked.

5.0 Principles

5.1 The principles and methods adopted by the Labuan takaful operator to value the liabilities of general takaful business shall:

(i) be appropriate to the business and risk profile of the general takaful business;

(ii) be consistent from year to year to preserve comparability;

(iii) include appropriate margins for adverse deviations in respect of the risks that arise under the takaful certificate;

(iv) be consistent with one another;

(v) take into account Labuan takaful operator's fiduciary duty to treat participants or clients fairly;

(vi) be in accordance with generally accepted actuarial principles; and

(vii) secure an overall level of sufficiency of the reserves at 75% confidence level. The Labuan takaful operator may choose to maintain reserves at a higher level where additional margins are needed to ensure their adequacy.

5.2 Where Labuan FSA requires the value of liabilities to be determined at any point in time other than at the financial year end, depending on the extent of the change in the business volume and profile, claims and underwriting processes, and, policy and business conditions since the last financial year, the Appointed Actuary may make adjustments to his last financial year end calculations or conduct a full revaluation as appropriate. The Appointed Actuary shall ensure that the value obtained is reflective of the liability profile at that point in time, in line with the requirements of the Guidelines and is consistent with the valuation basis at the last financial year end.

6.0 Definitions

6.1 In the Guidelines, unless the context otherwise requires, the terms used are defined as follows:

(i) '**Participants' Risk Fund**' (PRF) refers to the fund in which a portion of contributions paid by the takaful participants is allocated and pooled for the purpose of meeting claims by takaful participants on the basis of mutual assistance or protection;

(ii) '**Takaful benefit**' refers to the amount of benefit secured under a takaful certificate;

(iii) '**Liabilities of general takaful fund**' refers to the obligation of the general takaful fund to meet takaful benefits stipulated in takaful certificates and expenses payable from takaful fund;

(iv) '**Expense liabilities of shareholders' fund**' refers to the obligation of the shareholders' fund to pay for the operating costs incurred in managing the general takaful fund for the full contractual obligation of takaful certificates;

(v) '**Liabilities of general takaful business**' refers to the sum of liabilities of general takaful fund and expense liabilities of shareholders' fund;

(vi) The '**best estimate**' value is the statistical central estimate value of the liabilities concerned; and

(vii) The '**provision of adverse deviation (PAD)**' is the component of the value of takaful liabilities that relates to the uncertainty inherent in the best estimate. PAD is aimed at ensuring that the value of liabilities is established at a level such that there is a higher level of confidence (or probability) that the provisions will ultimately be sufficient.

7.0 Appointed Actuary Requirements

Appointment and Cessation

7.1 Every Labuan takaful operator must appoint an Appointed Actuary where the responsibility of appointing the Appointed Actuary lies with the board of directors (Board)[1]. In carrying out this responsibility, the Board must ensure that the appointment of the Appointed Actuary is in accordance with the requirements set out in the Guidelines.

7.2 A Labuan takaful operator must ensure that a person being considered as a candidate for the Appointed Actuary fulfils the following:

(i) The candidate is a Fellow of either:

(a) the Institute and Faculty of Actuaries of the United Kingdom;

(b) the Institute of Actuaries of Australia;

(c) the Canadian Institute of Actuaries;

(d) the Society of Actuaries of the United States of America;

(e) the Casualty Actuarial Society of the United States of America;

(f) the Society of Actuaries in Ireland;

(g) the China Association of Actuaries[2]; or

(h) such other associations as may be approved by Labuan FSA.

(ii) The candidate possesses at least three (3) years of relevant post qualification practical experience as a Fellow of one of the respective professional bodies highlighted in paragraph 7.2(i);

(iii) The candidate meets the relevant continued professional development requirements; and

[1] For the purpose of the Guidelines, in relation to a Labuan takaful operator of a branch status; the Board shall refer tothe parent company, regional office or head office overseeing the management of the branch Labuan takaful operator.

[2] Subject to completion of technical subjects relating to the general insurance liabilities or reserving as required under any of the actuarial professional bodies under paragraph 7.2(i) (a) to (e).

(iv) The candidate has been assessed by the Board to have met the fit and proper requirements outlined in the Guidelines on Fit and Proper Person Requirements as issued by Labuan FSA.

7.3 The Labuan takaful operator when carrying out the assessment on the suitability of the candidate must be satisfied, based on a reasonably robust assessment process, that the candidate has:

(i) adequate technical experience (which includes the use of relevant analytics) and has had key responsibilities in performing valuations of actuarial liabilities for general takaful business;

(ii) continuously be informed on emerging developments in takaful business and actuarial practice which are relevant to the duties of an Appointed Actuary;

(iii) adequate experience in engaging with members of the Board and senior management, in particular the ability to communicate and contextualise the results of technical actuarial assessments in a clear and comprehensible manner to key stakeholders who may not have an actuarial background;

(iv) a good professional track record;

(v) not been the subject of findings of a material contravention of the standards of any actuarial professional body or any law or regulation relating to actuarial conduct; and

(vi) no conflict of interest that would impair his ability to effectively discharge his duties as an Appointed Actuary. The candidate with multiple statutory appointments i.e. part of the group actuarial resources, must disclose any potential conflict of interest to the Board prior to the appointment. The Appointed Actuary must exercise professional accountability and impartiality in providing the actuarial services to the Labuan takaful operator at all times.

7.4 A Labuan takaful operator must notify Labuan FSA in writing of the appointment of the Appointed Actuary no later than ten (10) working days from the date of appointment. Similarly, the Labuan takaful operator shall also notify Labuan FSA in writing of the cessation of its Appointed Actuary and the reasons for it no later than ten (10) working days from the date of the Labuan takaful operator giving to or receiving from, the Appointed Actuary notice of cessation.

7.5 The Labuan takaful operator must appoint another person as its Appointed Actuary no later than three (3) months from the effective date of the cessation and notify Labuan FSA in writing no later than ten (10) working days from the date of appointment.

7.6 Where the Labuan takaful operator utilises its group actuarial resources including those with multiple statutory appointments or outsources to the third party actuarial function, the Appointed Actuary shall maintain professional accountability and impartiality needed in providing his actuarial services to the Labuan takaful operator. The outsourcing of actuarial function to third party would be subject to the prior approval of Labuan FSA in accordance with the Guidelines on External Service Arrangements for Labuan Financial Institutions. The Appointed Actuary, amongst others, must take reasonable steps to avoid actual and potential conflicts of interest in the course of carrying out his duties.

7.7 Pursuant to Section 153 of LIFSSA, Labuan FSA may remove an Appointed Actuary of a Labuan takaful operator if it reasonably believes that the Appointed Actuary is not carrying his roles and responsibilities in line with the requirements or the spirit intended by the Guidelines.

Duties and Responsibilities of the Appointed Actuary

7.8 The Appointed Actuary must:

(i) Certify that the valuation of actuarial and other policy liabilities is in accordance with:

(a) generally accepted actuarial principles and practices; and

(b) valuation principles, methods and assumptions set out in the Guidelines;

(ii) Provide recommendations to the Board on the appropriateness of surplus distribution to participants as well as any relevant distribution to shareholders; and

(iii) Apply the appropriate tests to reasonably satisfy himself of the completeness and accuracy of the current database of business used to perform his duties.

7.9 The report by the Appointed Actuary to the Board and senior management on the matters covered in paragraph 7.8 must include:

(i) a narrative of findings;

(ii) recommendations and conclusions; and

(iii) the basis for those conclusions.

7.10 This must be presented in a manner which clearly explains and gives sufficient prominence to significant issues and developments which have material implications on the general takaful liability valuation and reserving of the Labuan takaful operator, or the interests of its clients. The Appointed Actuary must be available to respond directly and in a timely fashion, to any questions or issues raised by the Board in relation to his report.

7.11 In relation to paragraph 7.8(i), the report by the Appointed Actuary must draw the attention of the Board to the following:

(i) key trends in the business composition, the portfolio's experience for each class of business and movements in the reserves for actuarial and other policy liabilities;

(ii) any material changes in selected assumptions;

(iii) reasons for any deviation from the assumptions implied by the experience analysis;

(iv) key assumptions in which small changes can cause significant variations in the valuation results; and

(v) significant observations from the comparison of actual and expected experience for both contribution and claim liabilities.

7.12 The Appointed Actuary must take appropriate steps to effectively engage the Board and senior management on the results of his investigations into the Labuan takaful operator's current and expected takaful liability valuation and reserving. The Appointed Actuary must present clearly and discuss directly with the Board, the plausible threats identified by the Appointed Actuary to the takaful liability valuation and reserving of the Labuan takaful operator, recommendations to address those threats and observed actions of the senior management in response to the recommendations made in the previous year.

7.13 The Appointed Actuary must keep adequate documentation of his work to facilitate continuity such that any party reviewing the Appointed Actuary's work would be able to understand his findings, recommendations and conclusions. This includes sufficient detail on:

(i) his engagements, whether written or verbal, with stakeholders;

(ii) the activities carried out as part of his duties, including processes relating to the certification of the valuation of liabilities; and

(iii) the methodology employed to satisfy himself of the accuracy of data used in performing his duties.

Board Oversight over the Appointed Actuary

7.14 The Board must ensure that the duties of the Appointed Actuary are discharged without any hindrance. This includes ensuring that arrangements are in place to:

(i) provide the Appointed Actuary with direct access to the Board;

(ii) keep the Appointed Actuary informed about the Labuan takaful operator's business plans;

(iii) ensure that the Appointed Actuary is provided with sufficient resources to effectively discharge his duties, including sufficient human resources as well as information technology and other appropriate systems;

(iv) provide the Appointed Actuary with full access rights to relevant records, accounts and any other information of the Labuan takaful operator; and

(v) enable the Appointed Actuary to request and receive information or explanation from the senior management and officers of the Labuan takaful operator as necessary.

7.15 Where the Appointed Actuary is to be assigned any other roles, the Board must be satisfied that there will be no conflict of interest. In particular, the role of the Appointed Actuary must be distinct from other executive functions and business line responsibilities. The Appointed Actuary's role must not be combined with other executive functions, i.e. "dual hatting" where the Appointed Actuary also serves as the chief executive officer, chief financial officer, chief operating officer or chief internal auditor. In addition, the Appointed Actuary must not have any management or financial responsibility in respect of business lines or revenue-generating functions.

7.16 The Board is required to review the reports submitted to it by the Appointed Actuary at a sufficiently granular level that enables the Board to form a well-founded view as to whether:

(i) adequate provisions have been made to meet the Labuan takaful operator's obligations under takaful certificates which it has written;

(ii) any major risks or concerns exist which affect the Labuan takaful operator's takaful liability valuation and reserving;

(iii) business decisions taken or planned to be taken need to be reviewed in light of limitations and alternative conclusions highlighted by the Appointed Actuary; and

(iv) corrective actions recommended by the Appointed Actuary have been implemented adequately.

8.0 Fund Segregation Requirement

8.1 A Labuan general takaful operator must establish and maintain separate takaful funds for its Malaysian certificates and non-Malaysian certificates.

8.2 Notwithstanding paragraph 8.1, a Labuan takaful operator may maintain one takaful fund if the gross written contribution[3] of the smaller fund is less than:

(i) 10% of the Labuan takaful operator's total gross written contribution or

(ii) USD 2 million,

whichever is lower.

8.3 For clarity, the requirements of 8.1 to 8.2 shall be applied in conjunction with the shariah requirements for fund segregation in relation to general takaful business.

8.4 Should in subsequent financial years, the gross written contribution threshold specified in paragraph 8.2 be exceeded, the Labuan takaful operator must establish and maintain separate funds between its Malaysian certificates and non-Malaysian certificates.

9.0 Valuation Methodology

9.1 The Appointed Actuary shall be responsible to ensure that the level of provisions, based on his professional valuation of liabilities of general takaful fund and expense liabilities of shareholders' fund, is sufficient to meet the requirements of the Guidelines.

9.2 The liabilities of general takaful business shall be determined using best estimate assumptions and with due regard to significant recent experience. In determining the best estimate values, the Appointed Actuary shall use his professional judgment and considerations of materiality that reflect the individual nature of the business.

[3] This refers to the gross written contribution of the immediate preceding financial year.

9.3 A Labuan takaful operator must measure the best estimate liabilities gross of retakaful. The recoveries from retakaful arrangements, which are to be determined net of any payments to the retakaful operator, are to be measured separately.

9.4 In the event that the value of the best estimate liabilities is determined to be negative, a Labuan takaful operator must not zeroise the best estimate liabilities.

9.5 The Appointed Actuary shall ensure that all contractual benefits paid from PRF are provided for in accordance with the requirements of the Guidelines. The Appointed Actuary shall also provide for meeting reasonable expectations of the participants on benefits of takaful coverage, where an expectation has been created via marketing process or any other communication between the takaful operator or its representative and the participants. Any provision set aside to meet reasonable expectations as described above shall be held in the shareholders' fund.

9.6 Where the Appointed Actuary uses more than one method to evaluate the best estimate values and these methods produce significantly different results, the reasons for the difference shall be explained and documented. The Appointed Actuary shall exercise his professional judgment in selecting the most appropriate method to use and provide justification for his selection.

9.7 The Appointed Actuary shall include an appropriate provision for adverse deviation from expected experience in the valuation of takaful liabilities. The risk margin, i.e. PAD, shall meet the requirements as outlined in paragraphs 13.1 to 13.6 of the Guidelines.

9.8 The liabilities of the general takaful business shall be valued for each homogenous class of business as determined by the Appointed Actuary in accordance with paragraphs 11.1 and 11.2.

9.9 For claim liabilities, where the Appointed Actuary's valuation result is lower than the aggregate case-by-case claims reserves as described in paragraphs 17.1 to 17.8, the Appointed Actuary may take credit for the difference provided that the reason for a release of provisions can be appropriately justified.

A. Liabilities of General Takaful Fund

9.10 The value of the general takaful fund liabilities shall be the aggregate of the values of claim liabilities and contribution liabilities.

Claim Liabilities

9.11 The value of claim liabilities shall consist of the best estimate value of the claim liabilities and the PAD calculated at the fund level.

9.12 In determining the claim liabilities, the Appointed Actuary shall consider all obligations of the takaful fund, whether contractual or otherwise, to make future payments in relation to all claims that have been incurred as at the valuation date. These include provision for claims reported, claims incurred but not reported, claims incurred but not enough reserved and claims-related expenses that are borne by the takaful fund.

9.13 The Appointed Actuary may adopt a standard and well understood method such as the link ratio method or the Bornheutter Ferguson method to estimate the claim liabilities. Where a non-standard method or a modified standard method is used, the Appointed Actuary shall ensure that detailed descriptions of the method including assumptions to validate the use of such method are appropriately provided.

Contribution Liabilities

9.14 The contribution liabilities shall be taken as the higher of:

(i) the aggregate of the provision for unearned contribution (UCR), calculated as described in paragraphs 18.1 to 18.3, for all lines of business; and

(ii) the best estimate value of the provision for unexpired risk (URR) at the valuation date and the PAD calculated at the total fund level.

9.15 The best estimate value of the takaful fund's URR shall be determined based on a prospective estimate of the expected future payments arising from future events covered under certificates in force as at the valuation date. It shall also include allowance for expenses, including cost of retakaful, expected to be borne by the takaful fund in administering these certificates during the unexpired period and settling the relevant claims, and shall allow for expected future contribution refunds.

9.16 For a reasonably homogeneous and stable portfolio, the takaful fund's URR may be estimated by leveraging on the results of the outstanding claim valuation model on the basis of claim frequencies, average claim costs and ultimate loss ratios or some similar measure of exposure. In this situation, the Appointed Actuary shall adjust the assumptions to reflect changes in risk exposure, underwriting standards, contribution rate levels, and other relevant factors on the expected future claims experience. In any case, the Appointed Actuary shall give due consideration to the appropriateness of the method and assumptions used.

9.17 For long-term general takaful certificates, appropriate adjustment shall be made to the valuation method such that the takaful coverage is in force for the full duration of the takaful contract. In determining the UCR, adjustment shall be made such that the method of computation takes into account the full unexpired period of the takaful coverage. In determining the URR, the Appointed Actuary shall use a prospective actuarial valuation based on the sum of present value of future benefits and any expected future expenses payable from the takaful funds, less the present value of future gross tabarru' arising from the certificate, discounted at the appropriate risk discount rate as defined in the Guidelines.

B. Expense Liabilities of Shareholders' Fund

9.18 The Appointed Actuary shall conduct the valuation of expense liabilities separately in the shareholders' fund. The expense liabilities of shareholders' fund shall be taken as the higher of:

(i) the aggregate of the provision for unearned wakalah fee (UWF), calculated in a similar manner as the calculation of the UCR, for all lines of business; and

(ii) the best estimate value of the provision for unexpired expense risk (UER) at the valuation date and the PAD calculated at the total fund level.

9.19 Where distribution expenses are incurred upfront, takaful operator may exclude distribution expenses from the calculation of the UWF.

9.20 The method used to value the UER shall be consistent with the method used to value the URR (for example, where discounting of liabilities is used in valuation of takaful fund, the Appointed Actuary should also apply discounting in valuation of expense liabilities). The best estimate value of UER shall be determined based on the expected future expenses payable from shareholders' fund in managing the takaful fund for the full contractual obligation of the takaful certificate as at the valuation date, less expected shareholders' fund income. The cash flows to be considered as shareholders' fund income shall be future wakalah fees and any other income that the takaful operator can determine with reasonable certainty.

9.21 For the purpose of paragraph 9.18, the Appointed Actuary may only consider distributable income from PRF as shareholders' fund income cash flow subject to the following conditions:

(i) the Appointed Actuary can determine with reasonable certainty the distributable level of future income from the PRF or sub-funds for each future time period consistent with the expected experience then, and apply this for each group of risks determined as per paragraphs 11.1 and 11.2 of the Guidelines; and

(ii) the capital requirements that may be imposed on PRF by Labuan FSA have been met by the takaful operator.

9.22 Where the liabilities of general takaful business cannot be appropriately valued using the valuation methodology stipulated in the Guidelines, other actuarial valuation methods may be used provided that it results in a provision no lower than the provision required by the Guidelines.

9.23 Non-USD currency denominated certificates shall be valued as per the requirements stipulated in the Guidelines and converted into USD currency using the spot currency conversion rate as at the valuation date. The method for determining the spot conversion rate should be consistently used.

10.0 Data and Information Used by the Appointed Actuary

10.1 The Principal Officer (PO) of a Labuan takaful operator is responsible to ensure that the takaful operator's database is properly maintained so that the data provided to the Appointed Actuary is consistent, accurate and complete. The Appointed Actuary shall be given unrestricted access to the database and management shall furnish immediately, upon request, such data and explanation as the Appointed Actuary may require when conducting the valuation of liabilities of the general takaful business.

10.2 The Appointed Actuary shall apply reasonableness tests to satisfy himself that the data he receives is consistent, accurate and complete. A check for both the integrity and completeness of data should precede the valuation work.

10.3 The Appointed Actuary shall ensure that the data used gives an appropriate basis for estimating the liabilities of the takaful business. The data includes the takaful fund's own exposure and claim experience data, and industry data where the takaful operator's own data is insufficient for the Appointed Actuary to make reasonable estimates. In circumstances where industry data is sparse, the Appointed Actuary may rely on his professional judgement in making the estimates and justify his approach accordingly.

10.4 The Appointed Actuary shall consider the extent to which he is reliant on the data provided by the takaful operator and any limitations of such reliance. Where the Appointed Actuary has reason to believe that the data may produce material biases in the results, he shall make appropriate allowance in his estimations to review and document the basis of such an allowance.

10.5 The Appointed Actuary may make adjustments to the data collated to account for abnormal items such as large losses or catastrophe losses. Where such adjustments are made, the nature, amount and rationale for the adjustments shall be clearly documented.

10.6 Besides quantitative information, the Appointed Actuary shall also seek qualitative information from the takaful operator's management regarding underwriting policy and processes, claims policy and processes, retakaful arrangements, certificate coverage, legal decisions affecting claim settlements, other operational issues such as change of computer system, turnover of key personnel, and any other relevant information relevant to his valuation of the liabilities.

11.0 Grouping of Risks

11.1 Generally, each class of business shall be considered separately due to the difference in nature of the risks and claims experience. The Appointed Actuary shall determine the most appropriate grouping of risks into lines of business or sub-lines of business, based on the availability of data, homogeneity of the data or similarity in business characteristics, nature of exposure to loss and loss settlement pattern, for the purpose of the valuation of the takaful liabilities. It is important not to subdivide data to such an extent that the analysis becomes unreliable due to the paucity of data within a particular line or sub-line of business. The Appointed Actuary shall explain in the Report, the manner in which the risks have been pooled into homogenous groups and the justifications on the grouping of risks adopted for the purpose of valuation exercise if this is different from the takaful operator’s internal policies on takaful fund segregation.

11.2 The Appointed Actuary shall also consider the manner in which the takaful business is managed by the takaful operator. Where a general takaful fund or a business line is managed in smaller sub-funds, the Appointed Actuary shall exercise due caution in grouping the risks, to ensure participants are treated fairly and that any cross subsidisation is in line with Shariah principles.

12.0 Valuation Assumptions

12.1 The Appointed Actuary shall consider appropriate and reasonable assumptions to be used in conducting the valuation of general takaful fund liabilities and the shareholders’ fund expense liabilities, accordingly.

12.2 The Appointed Actuary shall carry out a comparative study between actual experience and the expected experience from the previous valuation or earlier reports of similar nature in justifying the assumptions used. This may include comparing the actual amounts incurred or paid during the year with the expected amounts from the valuation model. The Appointed Actuary may also carry out comparisons on the number of claims, average claim size, claim frequency or any other analysis deemed appropriate.

12.3 Should there be any major differences in the actual versus expected experience, the Appointed Actuary shall consider revising the assumptions used in his valuation to reflect the trends in the experience.

12.4 The assumptions, based on but not limited to the following sections A to C, shall be considered such that the value of liabilities determined commensurate the nature of the takaful certificates.

A. Discounting

12.5 The Appointed Actuary shall exercise judgment on the use of discounting in the valuation of liabilities where the effect of such discounting is material. The Appointed Actuary shall apply explicit discounting, and shall only apply the discounting if this is deemed to be justified in his professional judgment. Where explicit discounting is deemed justified, the Appointed Actuary shall not apply implicit discounting in his valuation. Explicit discounting shall be applied to all future valuation of liabilities and reversal of the application of explicit discounting is disallowed. In any case, the Appointed Actuary shall ensure that the resulting provision meets the level of prudence expected of the Guidelines.

12.6 Where discounting is deemed to be justified, a Labuan takaful operator must use the discounting approach outlined in paragraphs 12.5 to 12.9 to discount all future cash flows when determining the best estimate liabilities of the takaful contracts.

12.7 The base risk-free yield curve for discounting cash flows is determined based on a three-segment approach and the parameters to be used will depend on the currency denomination of the cash flows, as set out in **Appendix X**.

Segment	Durations covered	Methodology & parameters for setting rates
1	Up to the duration of the last liquid point (LLP)	Rates set based on market information of government bonds (risk-free yield curve) or swaps with matching duration, where available. Where market information is not available, the rates are to be interpolated using the Smith-Wilson method.
2	After the LLP till the start of the third segment	Rates extrapolated from Segment 1 using the Smith-Wilson method. The principles for determination of alpha parameter, which determine the speed of convergence between the LLP and long-term forward rate (LTFR), are as below: a) Determine the lowest possible alpha which would result in the difference between the extrapolated rate at the commencement of Segment 3 and the LTFR being no more than 0.001%; b) The lowest possible alpha determined in a) shall be rounded to the nearest 0.05; and c) subject to a floor of 0.1.
3	Start from the later of the following: • 30 years after the LLP • 60 years	Rates determined by applying the LTFR.

Example: For Malaysian ringgit denominated cash flows, the market information up to the LLP of 15 years refers to the zero-coupon spot yield of Government Investment Issues (GII) for takaful contracts and the LTFR is 5%. The GII zero coupon spot yields shall be obtained from a recognised bond pricing agency in Malaysia, or any other recognised sources as may be specified by Labuan FSA.

12.8 In the event that the parameters for derivation of the base risk-free yield curve are not available in **Appendix X**, the equivalent yield in the country where the liabilities were derived from or any other appropriate rate deemed suitable with the nature of the Labuan takaful operator's general takaful liabilities may be used as the risk-free rate for the discounting of the non-Malaysian risks as determined by the Appointed Actuary.

12.9 Where the discounting is used, the Appointed Actuary shall disclose in the Report, the categories of claims in which discounting has been applied and the rationale for the use of discounting as well as the choice of rate selected.

B. Claims Escalation

12.10 The Appointed Actuary shall incorporate assumptions on claims escalation either explicitly or implicitly in his valuation. Where explicit discounting of liabilities is used, the Appointed Actuary shall apply explicit claims escalation assumptions.

12.11 The Appointed Actuary shall apply the following principles in considering the relevant factors for the purpose of determining explicit claims escalation assumptions as follows:

(i) Appropriate analyses on the claims escalation factors shall be conducted and future claims projection shall be adjusted as appropriate. The resulting claims escalation factors shall not be lower than the levels implied by historical claims data;

(ii) Explicit allowance for claims escalation, in addition to that implied by historical claims data, shall be provided if the Appointed Actuary views that the statistical methodologies employed do not fully capture the risks of future escalation when applied to aggregate historical claims data;

(iii) Case reserves shall be provided for adequately in the professional judgment of the Appointed Actuary to ensure that all material risks mitigated through the holding of undiscounted liability values are considered and adequately mitigated in the case reserves;

(iv) Analysis of experience as per paragraphs 12.2 and 12.3 shall be conducted and applied to the claims escalation assumptions and the corresponding impact to the overall liability values are taken into consideration. The underlying assumptions shall be adjusted immediately if the subsequent review of past liability values are deemed to be insufficient at any point of time; and

(v) The assumptions and explicit allowances for the claims escalation factors shall be appropriately prudent and ensure that the overall claim liabilities secure 75% level of sufficiency.

12.12 The Appointed Actuary shall make appropriate allowance to take into account future claims escalation which may be attributable to economic inflation factors such as wages and price inflation and other noneconomic inflation factors such as increasing court awards, medical cost inflation and technological improvements:

(i) Economic inflation factors may be determined based on the use of publicly available information on historic wage or price inflation and economists' forecasts to determine the future inflation rate; and

(ii) Non-economic inflation factor may be determined by considering the takaful fund's own claim experience as well as known general industry trends in the lines of business written by the takaful operator. For smaller portfolios, where it is difficult to identify non-economic inflation or its level, it may be necessary for the Appointed Actuary to rely on industry analysis or other actuarially accepted views.

C. Expenses

12.13 For liabilities of general takaful fund, expected future expenses payable from the takaful funds shall be included as the expense assumptions in the valuation. For expense liabilities of the shareholders' fund, management expenses and any other expected future expenses payable from the shareholders' fund in managing the takaful fund shall be included in the valuation.

12.14 The expense assumptions shall be derived based on the following:

(i) Distribution expenses shall be based on the actual costs to be incurred; and

(ii) Expenses payable from the takaful fund and management expenses payable from shareholders' fund shall be based on recent expense analysis with due regard to likely improvement or deterioration in the future.

12.15 Where the takaful operator's own expense analysis does not properly allocate expenses between certificate issue, ongoing certificate administration, claim establishment and claim management, the Appointed Actuary may give regard to industry benchmarks. However, such effect shall be clearly documented.

12.16 Suitable expense inflation, estimates of future wage and price inflation derived from historical data and other available information shall be factored in as appropriate and recognised in the valuation of general takaful liabilities and expense liabilities, accordingly.

13.0 Methods of Evaluating PAD

13.1 The PAD for the liabilities of takaful business shall be determined such that the overall valuation of liabilities of the general takaful fund and expense liabilities of shareholders' fund secure 75% sufficiency, respectively.

13.2 For the valuation of general takaful fund liabilities, the 75% confidence level shall be secured at the PRF level. Where a takaful operator segregates the PRF into further sub-funds and manages these sub-funds separately, the Appointed Actuary shall ensure the 75% sufficiency of the liabilities of these sub-funds individually.

13.3 In most cases, some judgment will be required in establishing appropriate levels of PAD. It is the Appointed Actuary's responsibility to support this judgment with such formal analysis as is practical.

13.4 In estimating PAD, the Appointed Actuary may have regard to relevant findings in external work, e.g. recent actuarial research or literature, if this is deemed to be appropriate. If reliance is placed on external work, then the source of that work shall be disclosed. If PADs are based on internal analysis, details of this analysis shall be provided.

13.5 To obtain the required 75% level of sufficiency for the valuation of liabilities of general takaful fund, the Appointed Actuary may allow for the diversification of risk due to correlations between the different lines of business, by reducing the levels of PAD calculated by line of business. The amount of any credit taken for such diversification shall be determined consistently with the overall principles used in calculating the PAD by line of business.

13.6 Diversification results obtained from a statistical method must be rationalised to ensure valid statistical reasons and that such results are not due to data quality issues or inappropriate adoption of assumptions/statistical methods. The Appointed Actuary shall consider the appropriateness of using a triangle of combined data and give due regard to the extent that underlying volatilities may be obscured. A takaful operator with business primarily concentrated in one particular class of business would expect very little or no diversification credit available compared to a takaful operator with a more even spread of business in various classes. Where the Appointed Actuary's calculated value of the diversification discount is more than 50% of the sum of the PAD by class of business, the Appointed Actuary shall only consider a diversification discount of a maximum of 50% of total PAD.

14.0 Outwards Retakaful

14.1 A Labuan takaful operator must determine the expected net recoveries from retakaful arrangements for each underlying contract by projecting the expected future cash flows from the retakaful arrangement.

14.2 In determining the amount of recoveries from the retakaful arrangement, a Labuan takaful operator must:

(i) assess the substance of the reinsurance arrangement in place by considering the retakaful operator's contractual obligations to the Labuan takaful operator. This must include an assessment on renewability of the retakaful contract and reviewability of the retakaful contributions; and

(ii) incorporate all relevant expected future cash flows, based on the assessment carried out under paragraph 14.2 (i), including future payments to the retakaful operator, in relation to the particular underlying contract.

14.3 In estimating the future cash flows for the retakaful arrangement, a Labuan takaful operator must:

(i) use assumptions that are consistent with those used to estimate the future cash flows of the underlying takaful contract; and

(ii) take into account the risk of counterparty default.

14.4 Where it is not practical for a Labuan takaful operator to explicitly determine the expected net recoveries from retakaful arrangements for each underlying contract according to paragraph 14.1 and the Labuan takaful operator uses a simplified method to derive the expected net recoveries from retakaful arrangements, this must be documented. For instance, for some retakaful arrangements which are non-proportional, the net retakaful recoveries may be derived as the difference between gross and net best estimate liabilities.

14.5 Non-retakaful recoveries such as recoveries by sale of salvage, carriers or other third parties in respect of claims paid shall also be considered. All these considerations shall form the underlying assumptions of the treatment adopted.

14.6 The Appointed Actuary shall ensure that the amount of recoveries to be recognised is based on the extent of their recoverability. Where there is considerable uncertainty concerning future recoverabilities, the Appointed Actuary shall exercise a degree of caution such that liabilities are not understated.

15.0 Inwards Retakaful

15.1 The Guidelines shall also apply to facultative inwards retakaful. For treaty inwards retakaful and pool inwards, where a comprehensive actuarial estimate is not possible due to the limitation of available data, the Appointed Actuary shall make appropriate adjustments such that the provisions approximate to the best estimate and the 75% confidence level.

15.2 Due to the more volatile nature of retakaful operator's claims experience and the lesser amount of data available to the retakaful operators as compared to direct takaful operators, the retakaful operator's own data may not be sufficient for the Appointed Actuary to reliably estimate the provisions for takaful liabilities. As such, the Appointed Actuary will have to utilise additional information obtained from external sources in the valuation and exercise more judgment than in the case of direct takaful. The Appointed Actuary shall clearly document the justification for his judgment in the Report.

15.3 Data limitations may have significant impact on the Appointed Actuary's approach in calculating the PAD. The Appointed Actuary may not be able to formulate PAD assumptions based solely upon the retakaful operator's own data and hence, may need to consider how the levels of PAD obtained for direct takaful operators could be adjusted in order to be applicable to retakaful.

15.4 In grouping data into homogeneous valuation classes, the Appointed Actuary may consider analysing data by the following subgroups:

(i) type of retakaful (e.g. Treaty proportional and non-proportional, Facultative proportional and non-proportional);

(ii) geographic location of risk; and

(iii) line of business (e.g. Property, Marine, Liability).

15.5 The classes chosen should be based upon the Appointed Actuary's view of the extent and reliability of the data. The Appointed Actuary shall include an explanation as to the manner in which the risks have been pooled into homogeneous groups in the Report.

15.6 The Appointed Actuary shall seek qualitative information from the retakaful operator or the ceding company. Better understanding of the nature of the business written currently and in the past, the trends in retakaful contribution and exchange commission rates, and the types of retakaful programs, policy limits, takaful operator's deductibles, etc. will allow the Appointed Actuary to make appropriate allowances in his valuation.

15.7. Since many property proportional treaties are accounted for on a clean cut basis and hence do not exhibit development patterns shown by treaties written on a run-off basis, the Appointed Actuary shall use an appropriate basis to allow for these contracts.

15.8 The Appointed Actuary shall make appropriate allowances for inwards retakaful business written from countries with strong experience of litigation and also for possible latent claim exposures.

15.9 The Appointed Actuary shall ensure that the valuation methodologies are appropriate based on the nature of the claim and exposure information available. Whilst the Incurred Claim Development, Expected Loss Ratio and Incurred Bornheutter Ferguson methods are commonly used, methods based on paid claim data are often not reliable due to the volatility of the available information.

15.10 The Appointed Actuary may find it more appropriate to carry out the valuation on an underwriting year basis as the retakaful data is usually presented in this manner. In producing provision estimates on an underwriting year basis, the Appointed Actuary will need to determine the claim and contribution liabilities separately and this is an issue for the latest underwriting year in particular. For this purpose, an approach that the Appointed Actuary may consider is as follows:

(i) Determination of claim liability

(a) The Appointed Actuary may conduct claim analysis by underwriting year and project the latest underwriting year's claims in full (ultimate claim cost), allowing for the estimated total written contribution for each underwriting year, i.e. produce triangulations of claims and written contributions by underwriting year and develop all years to ultimate.

(b) As the claim liabilities derived from such an underwriting year analysis will include liabilities relating to both incurred outstanding claims and unexpired risks relating to unearned contributions (particularly for the most recent underwriting year where most of the unearned contribution lies), the Appointed Actuary should apportion the latest underwriting years' liabilities into earned and unearned components. The earned component may be determined by deducting the expected claim cost in respect of the unearned contribution from the ultimate claim cost.

(ii) Determination of contribution liability

(a) The contribution liability should be derived based on the expected claim cost in respect of the unearned contribution (as calculated in paragraph 15.10(b) above) plus allowance for direct claims-related expenses and direct investment-related expenses, including cost of retakaful, expected to be incurred during the unexpired period in administering these certificates and settling the relevant claims.

(iii) Treatment of "unbooked" or "pipeline" contribution

(a) At the valuation date, there may exist outstanding contributions receivable by the retakaful operator relating to completed underwriting years. The amount is usually most significant for the latest underwriting year. Such outstanding contributions often referred to as "unbooked" or "pipeline" contributions, can arise from a number of sources including the periodic nature of the payment of contributions by each cedant, delays in payment of contributions by cedants and reinstatement contributions paid by cedants.

(b) The Appointed Actuary shall consider the impact of pipeline contributions at the valuation date on the valuation of liabilities and make appropriate adjustments. The Appointed Actuary may use professional judgment to apportion the pipeline contribution into earned and unearned components (coinciding with the outstanding claims and unexpired risk). He shall also allow for the direct claims-related expenses and investment-related expenses with respect to the pipeline contribution.

16.0 Actuarial Valuation Report

16.1 The Appointed Actuary shall prepare a report on the valuation of liabilities of general takaful business referred to as "The Report on Actuarial Valuation of Liabilities of General Takaful Business" (the Report), including the Reporting Forms for Valuation of Liabilities of General Takaful Business (Reporting Forms). The Appointed Actuary shall also disclose the extent of compliance with the requirements of the Guidelines and reasons for non-compliance, if any. The general format of the Report, outlining the minimum information required to be included, is set out in **Appendix I(a).** In addition, further details to the Report as per **Appendix I(b)** shall be maintained by the takaful operator. Labuan FSA may require for these additional information to be submitted as part of its supervision and monitoring of the takaful operator.

16.2 The Board shall provide effective oversight to ensure adequate controls are in place for the valuation process. The Board shall also ensure proper actions and timely follow ups are undertaken based on these results.

A. Presentation of the Valuation

16.3 For the purpose of presentation of the best estimate values of claims and contribution liabilities and the PADs in the Report, the Appointed Actuary shall refer to the required format provided in **Appendix II** and **Appendix IV**. For further guidance, the workflows of the computation for the claims and contribution liabilities are also provided in **Appendix III** and **Appendix V**. The liabilities shall also include retakaful and pool inwards as required under paragraph 15. For the presentation of the shareholders' fund expense liabilities, the Appointed Actuary shall refer to the required format in **Appendix VI** and **Appendix IX**. For further guidance, the workflows of the computation for the expense liabilities are also provided in **Appendix VII**.

16.4 The Appointed Actuary shall provide relevant supporting documents, worksheets and other information with sufficient details on his estimations of the value of liabilities of general takaful business as appendices to the Report, such that any other suitably experienced actuary may verify the results independently.

B. Certification of the Valuation

16.5 The Report shall be signed by the Appointed Actuary and the PO or his authorised signatory.

16.6 The Appointed Actuary shall state in the Report, his name and professional qualifications, and where the Appointed Actuary is an employee of the Labuan takaful operator or a related company, the capacity in which he is carrying out the investigation.

16.7 The Report shall be submitted to the Board annually, no later than three (3) months after the end of each financial year; and the Board as well as senior management should discuss with the Appointed Actuary the results of his valuation.

C. Reporting

16.8 Labuan takaful operators are required to submit the Report to Labuan FSA within six (6) months from the financial year end together with the annual audited financial statements or on other such date as may be requested Labuan FSA. The Report shall be submitted to the following:

Director
Supervision and Enforcement Department
Labuan Financial Services Authority (Labuan FSA)
Level 17, Main Office Tower,
Financial Park Complex
87000 Federal Territory of Labuan, Malaysia

Telephone no: 03-8873 2000

Facsimile no: 03-8873 2209

Email: *sed@labuanfsa.gov.my*

16.9 Notwithstanding this, Labuan takaful operators are required to maintain a pro-forma valuation in the interim periods (e.g. half-yearly basis) which may be part of statutory returns and subject to supervisory review by Labuan FSA. The presentation of the valuation shall be in accordance with **Table 1** in (**Appendix II**); **Table 2** (in **Appendix IV**); and **Table 3** (in **Appendix VI**).

16.10 The Appointed Actuary is required to report to Labuan FSA immediately any significant findings uncovered in his valuation of the Labuan takaful operator's takaful liabilities that can impair the Labuan takaful operator's takaful liability valuation or reserving condition.

17.0 Case by Case Claims Reserves for Reported Claims

17.1 With reference to the 'claims reported' in paragraph 9.12, a takaful operator shall enter in its register of claims, every claim intimation it receives from any source in respect of its certificates, no later than one month from the date of receipt of the claim intimation, unless it establishes that the claim does not relate to any of its certificates. Where the particulars of a claim intimation are insufficient for it to determine whether the claim relates to its certificate, the takaful operator shall make necessary enquiries to determine its liability.

17.2 A takaful operator shall make adequate provision in its accounts for a claim, which it has not fully settled, on the basis of the particulars of the claim.

17.3 Where the particulars of a claim intimation are insufficient at the time of entering a claim in the register of claims to enable the takaful operator to estimate its liability in respect of that claim, it shall make, in respect of that claim, a provision which is not less than the average amount paid during the preceding financial year for a claim of that class or description.

17.4 A takaful operator shall make provision for a claim by a third party by taking into account the best estimate of the amount of compensation likely to be awarded in the circumstances of the case and on the assumption that full liability of its certificate owner is admitted.

17.5 A takaful operator shall make adequate provision for legal fees which may be incurred to defend its repudiation of a claim where the claim is, without any doubt, outside the scope of its certificate, and the provision may be written back only if there are no developments with regard to the claim for at least 12 months following the repudiation.

17.6 A takaful operator shall make provision for an amount it considers adequate for a claim, assuming that the claim will be resolved in favour of the claimant, which it repudiates in circumstances other than that under paragraph 17.5 above.

17.7 A takaful operator shall not reduce a provision for a claim to an insignificant amount solely because the claimant has not proceeded with any action and shall maintain an adequate provision for the claim until such time that the claim is barred by limitation of time.

17.8 A takaful operator shall review the provision for every outstanding claim at least once a year.

18.0 Computation of UCR

18.1 A Labuan takaful operator shall determine its UCR as an amount calculated on the basis of a method of computation **no less** accurate than the 1/8th method, applied to contributions for general takaful certificates with a deduction for the actual wakalah fee. A Labuan takaful operator may adopt any method as the Appointed Actuary deems appropriate to compute non-annual takaful certificates.

18.2 For products based on wakalah contract, takaful operator shall determine the UCR based on gross contribution less the actual wakalah fee rather than the commission only.

18.3 The amount of UCR determined may be reduced for retakaful ceded.

19.0 Review of Provision for Liabilities of General Takaful Business

19.1 Where Labuan FSA has reason to believe that the provision for liabilities of general takaful business is not appropriate having regard to the business and risk profile of the takaful business, Labuan FSA may require for appropriate justification to be provided by the Labuan takaful operator. This may entail Labuan FSA:

(i) recommending to the takaful operator a provision amount which it considers appropriate; or

(ii) requiring the takaful operator to obtain a valuation of its liabilities of general takaful business from another Appointed Actuary. The Appointed Actuary shall report directly to Labuan FSA within a period as Labuan FSA may specify.

19.2 The takaful operator shall inform the approved or designated Appointed Actuary of all the relevant regulatory requirements relating to the valuation of liabilities. The takaful operator shall provide the approved or designated Appointed Actuary with all the data and explanation he requires, and any other additional information and facts relating to its business which the takaful operator considers relevant.

19.3 The takaful operator shall not require the approved or designated Appointed Actuary to discuss his findings or seek its agreement to his valuation results.

19.4 Labuan FSA may require, upon making the suggestion under paragraph 19.1(i), or upon considering the report made by the Appointed Actuary approved or designated under paragraph 19.2, require the takaful operator to show cause within a stipulated timeline as may be provided by Labuan FSA as to why it should not be directed to resubmit its account by altering the claims liabilities or contribution liabilities to an amount that is recommended by Labuan FSA.

Labuan Financial Services Authority
29 August 2022 (Revised)
1 November 2016

Appendix I(a)

The Report on Actuarial Valuation of Liabilities of General Takaful Business for the Year Ended dd/mm/yyyy

Name of (Re)takaful Operator : ______________________________

Name of Appointed Actuary : ______________________________

Qualification(s) : ______________________________

Section A: Business Profile

1. Describe the operational model adopted and the basis of separation of sub-funds.
2. Describe the company's business portfolio and comment on any significant changes in composition of business. This may include a description of history, statistics such as a breakdown of contribution income or case reserves by class of business etc.
3. Describe the company's underwriting process, including current policy, processes, systems and controls and changes over the period from which data was used in the valuation process. This may include matters such as:
   - specific market segments that are targeted by the underwriters;
   - how risks are selected;
   - any major recent changes in contribution rates and policy conditions;
   - any recent changes in levels of underwriting authorities;
   - any recent changes in key personnel and delegation of authority; and
   - any changes in level of deductibles or policy limits.
4. Describe the company's claim management process including current policy, processes, systems and controls and changes over the period from which data was used in the valuation process. This may include matters such as:
   - guidelines for setting case reserves and any recent changes in case reserving;
   - when claims are recognised, policy on opening and closing of claims;
   - any changes in the way claims are finalised;
   - policy on settlement of claims;

- any major personnel changes;
- the use of loss adjusters; and
- degree of legal involvement in claims.

5. Describe the current retakaful arrangements. This may include matters such as:
    - The structure of retakaful arrangements, the affected blocks of business and share of participating retakaful operators.
    - Any significant changes to the programme over recent years.
    - Consideration of any pending changes to the retakaful arrangements which may have an impact on the net of retakaful UCR or URR.
    - Consideration of the potential risk of default of retakaful recoveries based on publicly available information.
6. Describe the general business and industry conditions:
    - Description of significant events during the year affecting the claims experience and how these were taken into account in the valuation of the liabilities.
    - May include consideration of effects from factors including economic, technological, medical, legislative environment, social trends, competition, court decisions, etc.

Section B: Data

1. Document key features of the data, including:
    - The basis on which the analysis has been carried out (i.e. underwriting or accident year, net or gross of retakaful).
    - The source of the data and how it was extracted, including reliance on work of external auditors.
    - How the business was subdivided into valuation classes.

- Comments on the reliability and completeness of the data including the extent to which the Appointed Actuary relies upon the data provided by the takaful operator and any limitation of such reliance.
- Description of steps taken to test the consistency, accuracy and completeness of the data.
- Description of steps taken to ensure accuracy of valuation systems.
- Documentation of any adjustments made to the data to allow for abnormal items such as large losses, catastrophe losses, etc, including the amount and rationale for the adjustment.
- Documentation of quantitative information which may have an impact on valuation.

2. Statistics
   - Statistics should be built up to a minimum of seven years of data. Where more data are available and/or appropriate for use, these should be included.
   - For longer tailed classes, more years of data may be needed for the analysis to be appropriate.
3. Experience Analysis. Where possible the Appointed Actuary should discuss matters such as:
   - Trends and the possible reasons for the trends in contribution growth, speed of settlement and emergence of claims, average claim size, average claim frequency, average cost per claim, on paid and incurred basis.
   - Experience of large claims within the portfolio.

Section C: Valuation Methodology

1. Valuation of Best Estimate:
   - Describe in detail the valuation methods for estimating the best estimate provisions.

- If a non-standard method has been used, provide detailed description of how the method works. Assumptions to validate the use of non-standard method or a modified standard method shall also be furnished.
- Where more than one method is used, state the basis for the choice of results.
- Describe certificates that would be treated as an asset.
- Disclose details of any changes in the valuation methods used since the last valuation.
- Provide justification for key differences in assumptions between valuations of claims and contribution liabilities.

2. Valuation of PAD:
   - Describe in detail the methods for the derivation of the PAD at 75% confidence level by line of business.
   - Describe the methods, assumptions and justification for any diversification credits applicable to arrive at the PAD to ensure 75% confidence level.

3. Presentation of the Valuation:
   - Summarise the results of the valuation of the claims and contribution liabilities in accordance with **Table 1** in **Appendix II** and **Table 2** in **Appendix IV** respectively, and in **Table 4** in **Appendix VIII**.
   - Summarise the results of the valuation of shareholders' fund expense liabilities in accordance with **Table 3** in **Appendix VI** and **Table 5** in **Appendix IX**.
   - Comment on the level of sufficiency of the Appointed Actuary's valuation of the provisions in the general takaful fund and shareholders' fund. Comment on the level of sufficiency of the takaful fund's actual held provisions relative to the Appointed Actuary's valuation.
   - Provide provisions breakdown for retakaful and pool inwards by sources of business, in particular where these are significant.

Section D: Distribution of Surplus

1. Describe the basis to determine the allocation of surplus to participants and remuneration to shareholders' fund in PRF.
2. Comment on any issues highlighted by the analysis of surplus and participants' reasonable expectation before distributing the surplus.

Section E: Others

1. Details of the Appointed Actuary:
    - Party that has commissioned the report, and if different, the addressee(s) of the report;
    - The purpose of the report or the terms of reference given;
    - Any potential conflict of interest and how this has been resolved;
    - The extent, if any, to which the Report falls short of, or goes beyond, its stated purpose;
    - Any restriction placed on him in carrying out the valuation.
2. Compliance:
    - Document the extent of compliance to the requirements of the Guidelines and the reasons for non-compliance of the requirements, if any.
3. Definition of terms:
    - Provide definition of terms and expressions used in the Report which may be ambiguous or subject to wide interpretation.
4. Recommendations:
    - Where applicable, provide recommendations or comments to improve the reliability of future valuations of the liabilities for takaful business;
    - In cases where recommendations have been made, commentary should be provided on the responses given by the board of directors or takaful operator's management to those recommendations, and any follow up actions to be taken.

- Where applicable, comment on the actions taken by the board of directors in the current valuation year, in respect of recommendations made in the previous year's valuation.

Section F: Certification by the Appointed Actuary

The Appointed Actuary should provide certification as set out below:

I hereby certify that:

1. All necessary enquiries have been made and to the best of my knowledge and professional opinion, after applying sufficient tests, the valuation of general takaful fund liabilities and shareholders' fund expense liabilities obtained was reasonable;
2. I am satisfied that the credit given for retakaful in the valuation of takaful liabilities has been based on sufficiently prudent assumption of the probability of future recoveries and retakaful operator's default or inability to meet its obligations as per the terms of the retakaful arrangements;
3. I have recommended the allocation or part of surplus in general takaful fund for transfer to shareholders' fund in compliance with the guidelines and circulars issued by Labuan FSA;
4. I assume full responsibility for the valuation results and this report in its entirely, including any part of the work which has been delegated to another person; and
5. I am familiar with all applicable legislation, regulations and directives of Labuan FSA and confirm that the valuation is prepared in accordance to these regulatory requirements.

Signature : ________________________

Name : ________________________

Date : ________________________

Appointed Actuary

Section G: Certification by the Principal Officer (PO)

The PO should provide the following certification.

I hereby certify that:

1. I have satisfied myself that the computation of provision for unearned contribution, provision for unearned wakalah fee and maintenance of case-by-case claims reserves are appropriate and in compliance with all applicable legislation, regulations and directives of Labuan FSA; and
2. I hereby certify that the database is properly maintained and I have satisfied myself that the data provided to the Appointed Actuary is accurate and complete.

Signature : ________________________

Name : ________________________

Date : ________________________

Principal Officer

Appendix I(b)

Supporting Information to the Report on Actuarial Valuation of Liabilities of General Takaful Business

Valuation Assumptions and Analysis of Experience

1. Describe in detail and provide justification for the key assumptions made, including those related to participants' reasonable expectation, for the valuation methodology used, such as:

    - contribution rates changes
    - development factors, ultimate loss ratios
    - expense rates
    - how retakaful and non-retakaful recoveries have been taken into account in the valuation of liabilities and the underlying assumptions of the treatment adopted
    - discounting and details of classes where discounting is used including the rationale for applying discounting
    - claims escalation rates including the source and methodology from which they are derived

    Where more than one valuation method is used, disclose the assumptions for each method.

2. Documents the results and interpretation of experience analysis or comparative studies, for example on:

    - actual experience of both URR and claims liabilities versus expected experience in previous valuations;
    - discussion of the results obtained from current and previous valuation, stating reasons for any material change observed;
    - discussion and justification for material changes in method, assumption or basis used since last valuation, including quantifying the impact on provisions;
    - comparison of actual experience over the past year(s) with the expected experience based on previous valuation or earlier reports of similar nature (e.g. by comparing the sum of provisions held and actual claims paid in each development year against provision estimated in the previous development year, separately by accident/ underwriting year, where possible);

- where more than one valuation method was used, and the results obtained differ significantly, discuss the possible reasons for the differences;
- justify any credit given for the difference in valuation results and aggregate case by case reserves; and
- results of study on number of claims, average claim size, claims frequency, etc.

Supporting Worksheet and Appendices

1. Summary of Information

- Prepare detailed summary of all the data and other information used to arrive at the valuation results including:
    - accounting (e.g. financial statements) and other internal financial information/reports;
    - retakaful arrangements;
    - underwriting and claims management;
    - other recoveries (e.g. subrogation);
    - summary of claims data provided;
    - expenses incurred in the shareholders' fund in administering the takaful fund; and
    - sources used to set financial assumptions (e.g. discount and inflation rates).
- Information sought will include both quantitative (e.g. electronic claims data and financial statements) and qualitative information (e.g. information obtained from discussions with management, finance department, underwriting and claim management).

2. Workings on Valuation Method

- The workings of each valuation methodology and summary of the valuation results should be sufficiently transparent to enable another actuary to review the adopted methodology.
- For example, where a chain ladder approach is applied to incurred claims, the appendix should include for each group of risk or business lines:

- triangle of paid claims;
- triangle of case estimates;
- triangle of incurred claims;
- chain ladder factors and selected factors for projection;
- projection of ultimate incurred claims;
- projected loss ratios; and
- assessment of outstanding claim liability allowing for inflation and discounting if appropriate.

Appendix II

Guidance Notes for the Presentation of the Valuation of Claim Liabilities

The valuation of Claim Liabilities (CL) as per **Table 1** shall be computed as follows:

1. *Gross best estimate of CL for each class of business* [i.e. B(i), B(ii) until B(xi)] shall be calculated in accordance to paragraphs 9.12 to 9.13 of the Guidelines. *Gross best estimate of the Fund Total's CL* or B(F) is the sum of gross best estimate of the claims for each class of business.
   i.e. B(F) = B(i) + B(ii) +…+ B(xi).

2. *Provision for Adverse Deviation (PAD) of CL for each class of business* [i.e. PAD(i), PAD(ii) until PAD(xi)] is calculated at 75% level of confidence. *PAD for the Fund Total's CL* [i.e. PAD(F)] is the sum of the PAD of CL for each class of business.
   i.e. PAD(F) = PAD(i) + PAD(ii) +... + PAD(xi).

3. *Fund PAD (FPAD) of Fund Total's CL* [i.e. FPAD(F)] is derived from *gross best estimate of the Fund Total's CL* to ensure 75% confidence level, after considering diversification and other interactions between classes of business. *FPAD of CL for each class of business* [i.e. FPAD(i), FPAD(ii) until FPAD(xi)] is the value of FPAD(F) allocated to each class of business. Allocation should be made in a consistent and logical manner while the value allocated should be more than zero.

4. *Gross CL for each business and the Fund Total* at the adopted confidence level are the summation of respective entries for columns (I) and (III)
   i.e. GCL (i) = B(i) + FPAD (i)
   GCL (F) = B(F) + FPAD (F)

5. *Net Reinsurance Recoveries for each class of business* [i.e. R(i), R(ii) until R(xi)] shall be calculated in accordance to section 14 of the Guidelines. *Net Reinsurance Recoveries for the Fund Total* or R(F) is the sum of net reinsurance recoveries for each class of business.
   i.e. R(F) = R(i) + R(ii) +…+ R(xi).

6. *Net CL for each business and the Fund Total* are the difference of respective entries for columns (IV) and (V).
   i.e. NCL (i) = GCL(i) - R(i)
   NCL (F) = GCL(F) - R(F)

7. The last column is to fill in whether the net CL is discounted or not discounted i.e. Yes/No.

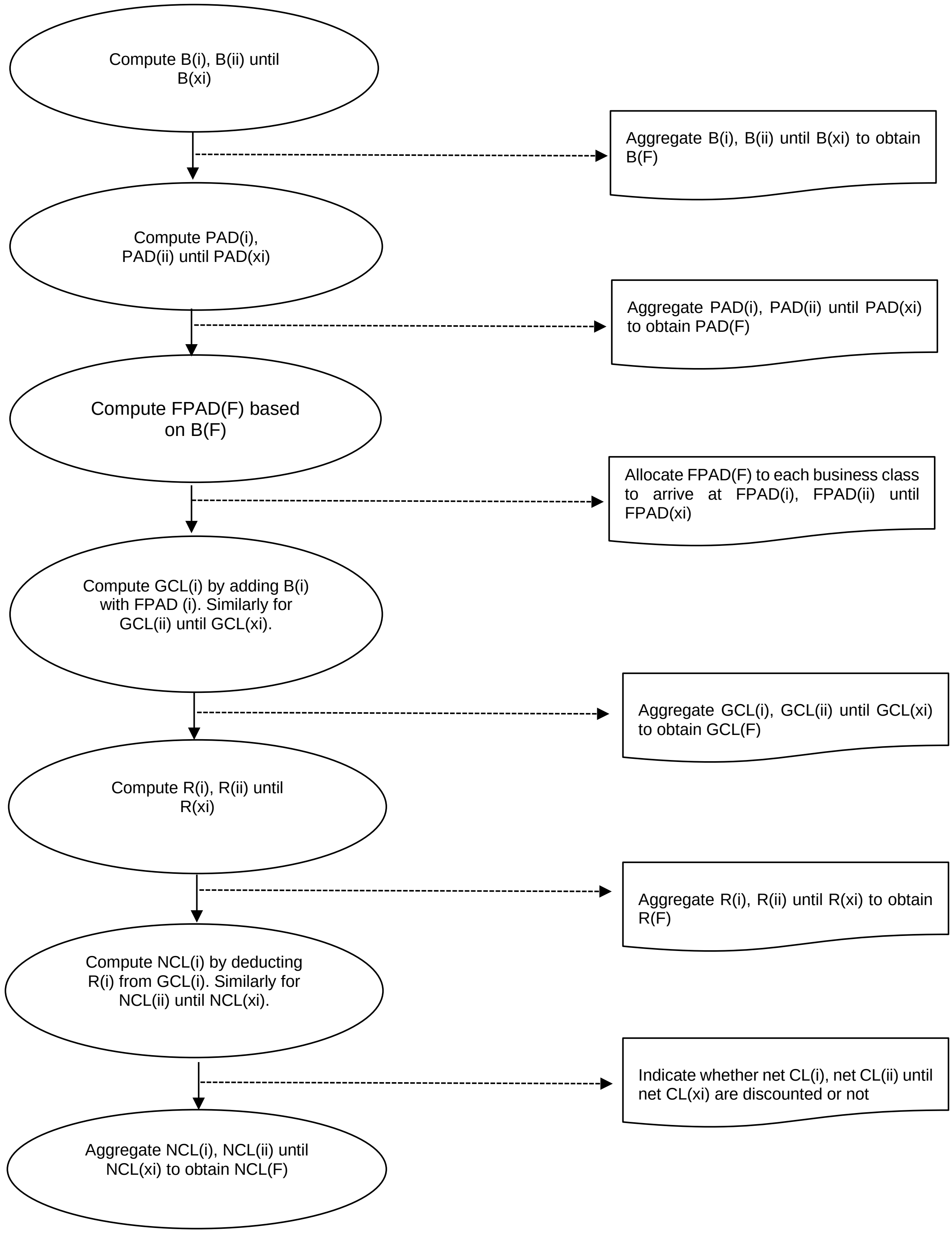
Table 1: Claims Liabilities (CL)[4]

Business Class	Gross Best Estimate of CL (I)	PAD of CL at 75% confidence level (II)	Fund PAD (FPAD) of CL at 75% confidence level (III)	Gross CL (IV) = (I) + (III)	Net Reinsurance Recoveries for CL (V)	Net CL at 75% confidence level (VI) = (IV) – (V)	Whether Net CL is discounted
1. Fire	B(i)	PAD(i)	FPAD (i)	GCL(i) = B(i) + FPAD (i)	R(i)	NCL(i) = GCL(i) – R(i)	Yes/No
2. Marine Hull	B(ii)	PAD(ii)	FPAD (ii)	GCL(ii) = B(ii) + FPAD (ii)	R(ii)	NCL(ii) = GCL(ii) – R(ii)	Yes/No
3. Cargo	B(iii)	PAD(iii)	FPAD (iii)	GCL(iii) = B(iii) + FPAD (iii)	R(iii)	NCL(iii) = GCL(iii) – R(iii)	Yes/No
4. Engineering	B(iv)	PAD(iv)	FPAD (iv)	GCL(iv) = B(iv) + FPAD (iv)	R(iv)	NCL(iv) = GCL(iv) – R(iv)	Yes/No
5. Motor	B(v)	PAD(v)	FPAD (v)	GCL(v) = B(v) + FPAD (v)	R(v)	NCL(v) = GCL(v) – R(v)	Yes/No
6. Aviation	B(vi)	PAD(vi)	FPAD (vi)	GCL(vi) = B(vi) + FPAD (vi)	R(vi)	NCL(vi) = GCL(vi) – R(vi)	Yes/No
7. Liabilities	B(vii)	PAD(vii)	FPAD (vii)	GCL(vii) = B(vii) + FPAD (vii)	R(vii)	NCL(vii) = GCL(vii) – R(vii)	Yes/No
8. Medical and Health	B(viii)	PAD(viii)	FPAD (viii)	GCL(viii) = B(viii) + FPAD (viii)	R(viii)	NCL(viii) = GCL(viii) – R(viii)	Yes/No
9. Personal Accident	B(ix)	PAD(ix)	FPAD (ix)	GCL(ix) = B(ix) + FPAD (ix)	R(ix)	NCL(ix) = GCL(ix) – R(ix)	Yes/No
10. Workmen's Compensation & Employers' Liability	B(x)	PAD(x)	FPAD (x)	GCL(x) = B(x) + FPAD (x)	R(x)	NCL(x) = GCL(x) – R(x)	Yes/No
11. Others	B(xi)	PAD(xi)	FPAD (xi)	GCL(xi) = B(xi) + FPAD (xi)	R(xi)	NCL(xi) = GCL(xi) – R(xi)	Yes/No
Fund Total	B(F)	PAD(F)	FPAD (F)	GCL(F) = B(F) + FPAD(F)	R(F)	NCL(F) = GCL(F) – R(F)	N/A

[4] Where a general takaful fund is managed in smaller sub-funds, **Table 1** shall be used to report the valuation of claim liabilities of each sub-fund.

Appendix III

Workflow of the Computation of Table 1: Claims Liabilities



Appendix IV

Guidance Notes for the Presentation of the Valuation of Contribution Liabilities

The valuation of Contribution Liabilities (PL) as per **Table 2** shall be computed as follows:

1. *Net Provision for Unearned Contribution (UCR) for each class of business* amount [i.e. A(i), A(ii) until A(xi)] shall be calculated in accordance to the current requirements in section 18 of the Guidelines. *Net UCR for the Fund Total* or A(F) is the sum of net UCR for each business.
   i.e. A(F) = A(i) + A(ii) + A(iii) +….+ A(xi)

2. Gross *best estimate of the Provision for Unexpired Risk (URR) of each class of business* [i.e. B(i), B(ii) until B(xi)] shall be computed in accordance to paragraph 9.15 to 9.17 of the Guidelines. *Gross best estimate of the Fund Total's URR* or B(F) is the sum of gross best estimate of the URR for each business.
   i.e. B(F) = B(i) + B(ii) + B(iii) +….+ B(xi)

3. *Provision of Adverse Deviation (PAD) of URR for each class of business* [i.e. PAD(i), PAD(ii) until PAD(xi)] is calculated at 75% level of confidence. *PAD for the Fund Total's URR* [i.e. PAD(F)] is the sum of PAD of the URR for each class of business.
   i.e. PAD(F) = PAD(i) + PAD(ii) + PAD(iii) +….+PAD(xi).

4. *Fund PAD (FPAD) of URR of the Fund Total* [i.e. FPAD(F)] is derived from gross *best estimate of the Fund Total's URR* to ensure a 75% confidence level after considering diversification and other interactions between classes. *FPAD of URR for each business* [i.e. FPAD(i), FPAD(ii) until FPAD(xi)] is the value of FPAD(F) allocated to each class of business. Allocation should be made in a consistent and logical manner while the value allocated should be more than zero.

5. *Gross URR* for each class of business and the Fund Total at the adopted confidence level are the summation of respective entries for columns (II) and (IV).
   i.e. GC(i) = B(i) + FPAD (i)
   GC(F) = B(F) + FPAD(F)

6. *Net reinsurance recoveries for URR for each class of business* [i.e. r(i), r(ii) until r(xi)] shall be calculated in accordance to section 14 of the Guidelines. *Net Reinsurance Recoveries for the Fund Total* or r(F) is the sum of net reinsurance recoveries for each class of business.
   i.e. r(F) = r(i) + r(ii) +…+ r(xi)

7. *Net URR for each business and the Fund Total* are the difference of respective entries for columns (V) and (VI).
   i.e. NC(i) = GC(i) - r(i)
   NC(F) = GC(F) - r(F)

8. *Contribution liabilities for the Fund Total* or PL(F) is the higher of net *UCR for Fund* and net *URR at 75% confidence level for Fund Total*.
   i.e. Higher of A(F) and NC(F)

   Contribution liabilities for each class of business [i.e. PL(i), PL(ii) until PL(xi)] is the value of PL(F) allocated to each line of business. Allocation should be made in a consistent and logical manner while the value allocated to each class of business should not be less than the respective net URR.

Table 2: Contribution Liabilities (PL)[5]

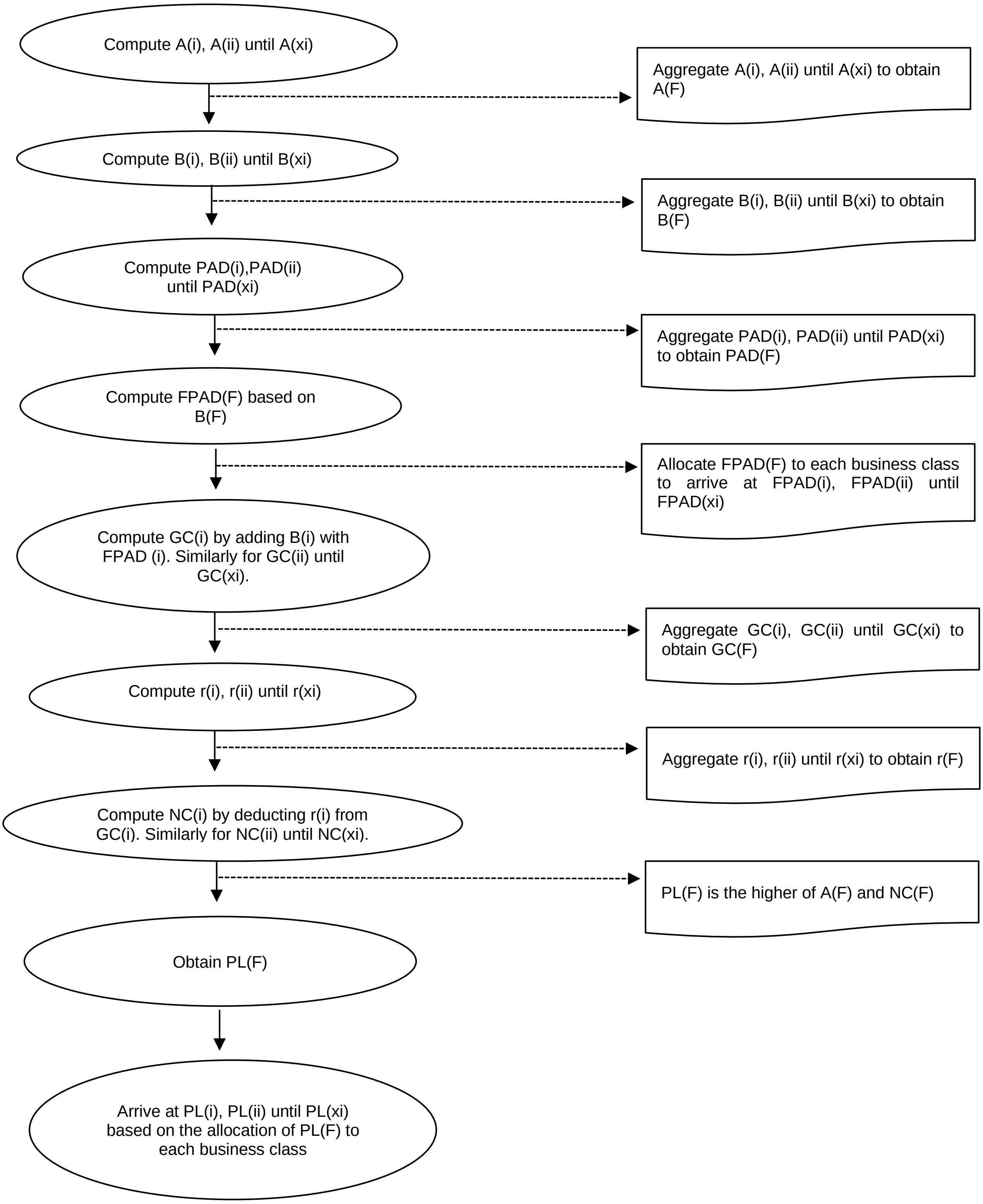
Business Class	Net UCR (I)	Gross Best Estimate URR (II)	PAD of URR at 75% confidence level (III)	Fund PAD (FPAD) of URR at 75% confidence level (IV)	Gross URR (V) = (II) + (IV)	Net Reinsurance Recoveries for URR (VI)	Net URR at 75% confidence level (VII) = (V) – (VI)	PL (VIII)
1. Fire	A(i)	B(i)	PAD(i)	FPAD (i)	GC(i) = B(i) + FPAD(i)	r(i)	NC(i) = GC(i) – r(i)	PL(i)
2. Marine Hull	A(ii)	B(ii)	PAD(ii)	FPAD (ii)	GC(ii) = B(ii) + FPAD(ii)	r(ii)	NC(ii) = GC(ii) – r(ii)	PL(ii)
3. Cargo	A(iii)	B(iii)	PAD(iii)	FPAD (iii)	GC(iii) = B(iii) + FPAD(iii)	r(iii)	NC(iii) = GC(iii) – r(iii)	PL(iii)
4. Engineering	A(iv)	B(iv)	PAD(iv)	FPAD (iv)	GC(iv) = B(iv) + FPAD(iv)	r(iv)	NC(iv) = GC(iv) – r(iv)	PL(iv)
5. Motor	A(v)	B(v)	PAD(v)	FPAD (v)	GC(v) = B(v) + FPAD(v)	r(v)	NC(v) = GC(v) – r(v)	PL(v)
6. Aviation	A(vi)	B(vi)	PAD(vi)	FPAD (vi)	GC(vi) = B(vi) + FPAD(vi)	r(vi)	NC(vi) = GC(vi) – r(vi)	PL(vi)
7. Liabilities	A(vii)	B(vii)	PAD(vii)	FPAD (vii)	GC(vii) = B(vii) + FPAD(vii)	r(vii)	NC(vii) = GC(vii) – r(vii)	PL(vii)
8. Medical and Health	A(viii)	B(viii)	PAD(viii)	FPAD (viii)	GC(viii) = B(viii) + FPAD(viii)	r(viii)	NC(viii) = GC(viii) – r(viii)	PL(viii)
9. Personal Accident	A(ix)	B(ix)	PAD(ix)	FPAD (ix)	GC(ix) = B(ix) + FPAD(ix)	r(ix)	NC(ix) = GC(ix) – r(ix)	PL(ix)
10. Workmen's Compensation & Employers' Liability	A(x)	B(x)	PAD(x)	FPAD (x)	GC(x) = B(x) + FPAD(x)	r(x)	NC(x) = GC(x) – r(x)	PL(x)
11. Others	A(xi)	B(xi)	PAD(xi)	FPAD (xi)	GC(xi) = B(xi) + FPAD(xi)	r(xi)	NC(xi) = GC(xi) – r(xi)	PL(xi)
Fund Total	A(F)	B(F)	PAD(F)	FPAD (F)	GC(F) = B(F)+ FPAD(F)	r(F)	NC(F) = GC(F) – r(F)	PL(F)*

*PL(F) refers to the higher of "A(F)" and "NC(F)"

[5] Where a general takaful fund is managed in smaller sub-funds, **Table 2** shall be used to report the valuation of contribution liabilities of each sub-fund.

Appendix V

Workflow of the Computation of Table 2: Contribution Liabilities



Appendix VI

Guidance Notes for the Presentation of Expense Liabilities of Shareholders' Fund

The valuation of Expense Liabilities of Shareholders' Fund (EL) as per **Table 3** shall be computed as follows:

1. *Net Provision for Unearned Wakalah Fee (UWF) for each class of business* amount [i.e. A(i), A(ii) until A(xi)] shall be calculated in accordance to the current requirements in paragraph 9.18(i) of the Guidelines. *Net UWF for the Fund Total* or A(F) is the sum of net UWF for each business.
   i.e. A(F) = A(i) + A(ii) + A(iii) +….+ A(xi)

2. *Gross best estimate of the Provision for Unexpired Expense Risk (UER) of each class of business* [i.e. B(i), B(ii) until B(xi)] shall be computed in accordance to the definition of paragraph 9.20 of the Guidelines. *Gross best estimate of the Fund Total's UER* or B(F) is the sum of gross best estimate of the UER for each business.
   i.e. B(F) = B(i) + B(ii) + B(iii) +….+ B(xi)

3. *Provision of Adverse Deviation (PAD) of UER for each class of business* [i.e. PAD(i), PAD(ii) until PAD(xi)] is calculated at 75% level of confidence. *PAD for the Fund Total's UER* [i.e. PAD(F)] is the sum of PAD of the UER for each class of business i.e. PAD(F) = PAD(i) + PAD(ii) + PAD +….+PAD(xi).

4. *Gross UER* for each class of business and the Fund Total at the adopted confidence level are the summation of respective entries for columns (II) and (III)
   i.e. GC(i) = B(i) + PAD (i)
   GC(F) = B(F) + PAD(F)

5. *Net reinsurance recoveries for UER for each class of business* [i.e. r(i), r(ii) until r(xi)] shall be calculated in accordance to section 14 of the Guidelines. *Net reinsurance recoveries for the Fund Total* or r(F) is the sum of net reinsurance recoveries for each class of business.
   i.e. r(F) = r(i) + r(ii) +…+ r(xi)

6. *Net UER for each business and the Fund Total* are the difference of respective entries for columns (IV) and (V).
   i.e. NC(i) = GC(i) - r(i)
   NC(F) = GC(F) - r(F)

7. *Expense liabilities of shareholders' fund for the Fund Total* or EL(F) is the higher of *net UWF for Fund* and *net UER at 75% confidence level*.
i.e. Higher of A(F) and NC(F)

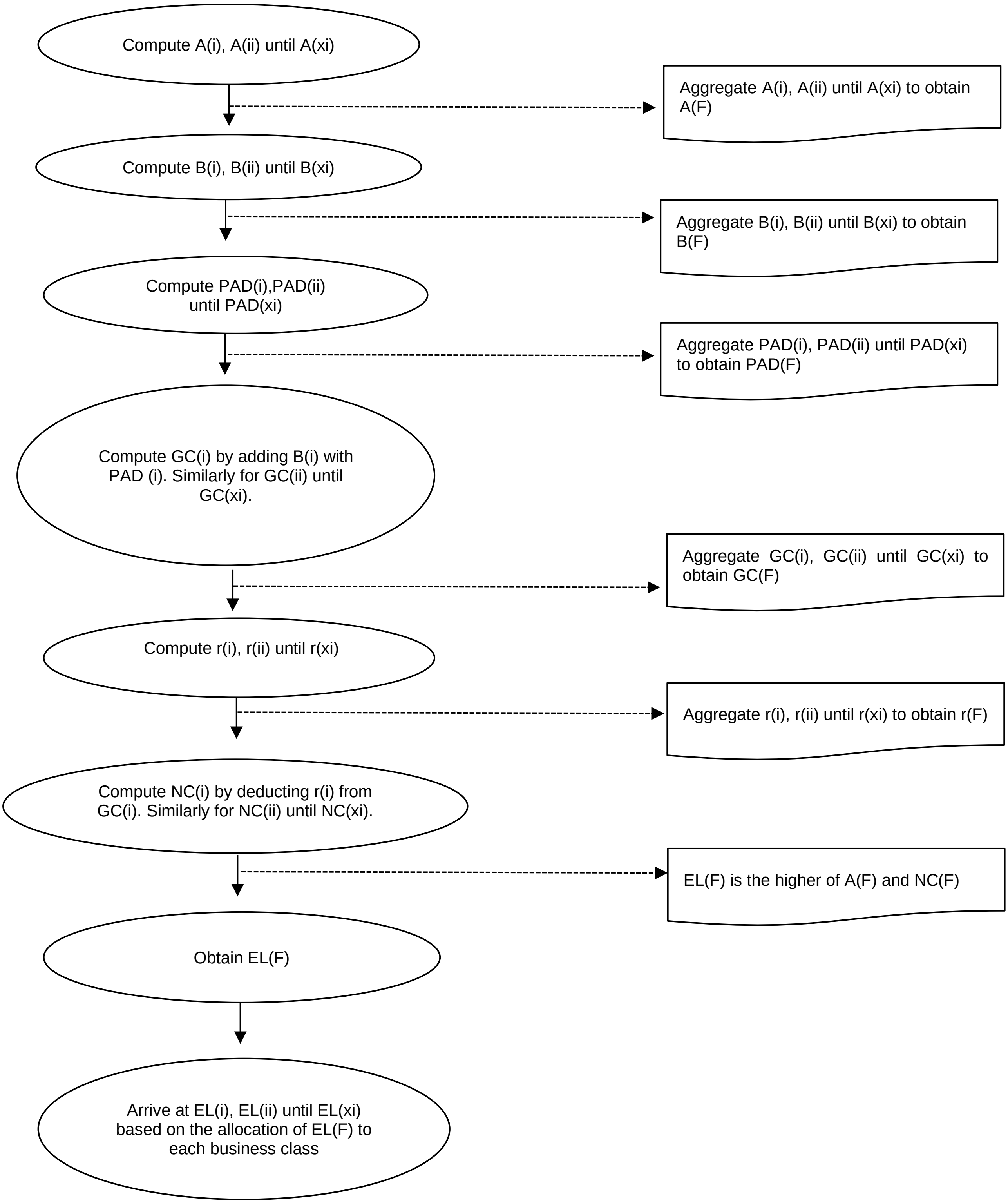
Expense liabilities of shareholders' fund for each class of business [i.e. EL(i), EL(ii) until EL(xi)] is the value of EL(F) allocated to each line of business. Allocation should be made in a consistent and logical manner while the value allocated to each class of business should not be less than the respective net UER.

Table 3: Expense Liabilities of Shareholders' Fund (EL)

Business Class	Net UWF (I)	Gross Best Estimate UER (II)	PAD of UER at 75% confidence level (III)	Gross UER (IV) = (II) + (III)	Net Reinsurance Recoveries for UER (V)	Net UER at 75% confidence level (VI) = (IV) – (V)	EL
1. Fire	A(i)	B(i)	PAD(i)	GC(i) = B(i) + PAD(i)	r(i)	NC(i) = GC(i) – r(i)	EL(i)
2. Marine Hull	A(ii)	B(ii)	PAD(ii)	GC(ii) = B(ii) + PAD(ii)	r(ii)	NC(ii) = GC(ii) – r(ii)	EL(ii)
3. Cargo	A(iii)	B(iii)	PAD(iii)	GC(iii) = B(iii) + PAD(iii)	r(iii)	NC(iii) = GC(iii) – r(iii)	EL(iii)
4. Engineering	A(iv)	B(iv)	PAD(iv)	GC(iv) = B(iv) + PAD(iv)	r(iv)	NC(iv) = GC(iv) – r(iv)	EL(iv)
5. Motor	A(v)	B(v)	PAD(v)	GC(v) = B(v) + PAD(v)	r(v)	NC(v) = GC(v) – r(v)	EL(v)
6. Aviation	A(vi)	B(vi)	PAD(vi)	GC(vi) = B(vi) + PAD(vi)	r(vi)	NC(vi) = GC(vi) – r(vi)	EL(vi)
7. Liabilities	A(vii)	B(vii)	PAD(vii)	GC(vii) = B(vii) + PAD(vii)	r(vii)	NC(vii) = GC(vii) – r(vii)	EL(vii)
8. Medical and Health	A(viii)	B(viii)	PAD(viii)	GC(viii) = B(viii) + PAD(viii)	r(viii)	NC(viii) = GC(viii) – r(viii)	EL(viii)
9. Personal Accident	A(ix)	B(ix)	PAD(ix)	GC(ix) = B(ix) + PAD(ix)	r(ix)	NC(ix) = GC(ix) – r(ix)	EL(ix)
10. Workmen's Compensation & Employers' Liability	A(x)	B(x)	PAD(x)	GC(x) = B(x) + PAD(x)	r(x)	NC(x) = GC(x) – r(x)	EL(x)
11. Others	A(xi)	B(xi)	PAD(xi)	GC(xi) = B(xi) + PAD(xi)	r(xi)	NC(xi) = GC(xi) – r(xi)	EL(xi)
Fund Total	A(F)	B(F)	PAD(F)	GC(F) = B(F)+ PAD(F)	r(F)	NC(F) = GC(F) – r(F)	EL(F)*

*EL(F) refers to the higher of 'A(F)' and 'NC(F)'

Workflow of the Computation of Table 3: Expense Liabilities of Shareholders' Fund



Appendix VIII

Summary of Claims and Contribution Liabilities

Table 4: Summary of Claims and Contribution Liabilities

Line of Business	Contribution-related liabilities			Claims-related liabilities		
	Net URR at 75% confidence level (a)	Net UCR (b)	PL (c)	Case Estimates (d)	IBNR (e)=(f) – (d)	Net CL at 75% confidence level (f)
1. Fire						
2. Marine Hull						
3. Cargo						
4. Engineering						
5. Motor						
6. Aviation						
7. Liabilities						
8. Medical and Health						
9. Personal Accident						
10. Workmen's Compensation & Employers' Liability						
11. Others						

Appendix IX

Summary of Expense Liabilities of Shareholders' Fund

Table 5: Summary of Expense Liabilities of Shareholders' Fund

Line of Business	Net Provision for Unearned Wakalah Fee (a)	Net Provision for Unexpired Expense Risk at 75% confidence level (b)	Net Expense Liabilities (c)
1. Fire			
2. Marine Hull			
3. Cargo			
4. Engineering			
5. Motor			
6. Aviation			
7. Liabilities			
8. Medical and Health			
9. Personal Accident			
10. Workmen's Compensation & Employers' Liability			
11. Others			

Appendix X

Parameters for Derivation of the Base Risk-free Yield Curve

The parameters to be used to derive the base risk-free yield curve are as set out in the table below.

Currency		Market information to be used as input to Segment 1	Last liquid point (LLP) (years)	Long-term forward rate (LTFR)
AUD	Australian Dollar	Government Bonds	30	3.8%
BRL	Brazilian Real	Government Bonds	10	7.0%
CAD	Canadian Dollar	Government Bonds	30	3.8%
CHF	Swiss Franc	Government Bonds	20	2.8%
CLP	Chilean Peso	Swaps	10	5.0%
CNY	Yuan Renminbi	Government Bonds	10	6.0%
COP	Colombian Peso	Swaps	10	6.0%
CZK	Czech Koruna	Swaps	15	3.8%
DKK	Danish Krone	Swaps	20	3.8%
EUR	Euro	Swaps	20	3.8%
GBP	Pound Sterling	Swaps	50	3.8%
HKD	Hong Kong Dollar	Swaps	15	4.4%
HUF	Forint	Government Bonds	15	6.0%
IDR	Rupiah	Swaps	10	8.0%
ILS	New Israeli Shekel	Swaps	20	4.4%
INR	Indian Rupee	Swaps	10	7.0%
JPY	Yen	Government Bonds	30	3.8%
KRW	Won	Government Bonds	20	4.4%
MXN	Mexican Peso	Government Bonds	20	5.0%
MYR	Malaysian Ringgit	Government Bonds	15	5.0%
NOK	Norwegian Krone	Swaps	10	3.8%
NZD	New Zealand Dollar	Swaps	20	4.8%
PEN	Sol	Swaps	10	6.0%
PHP	Philippine Peso	Swaps	10	7.0%
PLN	Zloty	Government Bonds	10	5.0%
RON	Romanian Leu	Government Bonds	10	5.0%
RUB	Russian Ruble	Swaps	10	7.0%
SAR	Saudi Riyal	Swaps	15	6.0%
SEK	Swedish Krona	Swaps	10	3.8%
SGD	Singapore Dollar	Government Bonds	20	3.8%
THB	Baht	Government Bonds	10	5.0%
TRY	Turkish Lira	Government Bonds	10	7.0%
TWD	New Taiwan Dollar	Government Bonds	10	4.4%
USD	US Dollar	Government Bonds	30	3.8%
ZAR	Rand	Government Bonds	30	7.0%

Source: International Association of Insurance Supervisors (IAIS)

These parameters are subject to periodic review by the IAIS. The updated parameters will be published on the Insurance Capital Standards section of the IAIS website. A Labuan takaful operator would be expected to ensure that the latest parameters are used when conducting the valuation of takaful liabilities.