GUIDELINES ON VALUATION BASIS FOR LIABILITIES OF LABUAN GENERAL INSURANCE BUSINESS

1.0 Introduction

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

1.2 For the purpose of this Guidelines, the term 'Labuan insurer' shall be taken to include a reinsurer underwriting general reinsurance business, unless otherwise specified.

2.0 Applicability

2.1 The Guidelines is applicable to all Labuan insurers underwriting general insurance business licensed under Part VII of the Labuan Financial Services and Securities Act 2010 (LFSSA) excluding (re)insurance captives.

2.2 With the implementation of the Guidelines pursuant to paragraph 4.1, the following clarification notes shall be superseded:

(i) Clarification Note for Guidelines on Valuation Basis for Liabilities of Labuan General and Life Insurance Business dated 16 December 2016; and

(ii) 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.

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 insurers under Section 109 of LFSSA.

3.2 Any person who fails to comply with the Guidelines is guilty of an offence punishable under Section 36B and 36G of the LFSAA.

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4.0 Effective Date

4.1 This Guidelines shall come into effect from financial year beginning on or after 1 July ~~2016~~ 2022; and would remain effective as well as applicable unless amended or revoked.

Question 1: Do you foresee any implementation issues if the revised requirements are to be enforced on 1 July 2022?

4.2 Notwithstanding paragraph 4.1, Labuan insurers are encouraged to conduct the valuation of liabilities of general insurance business in accordance to the requirements of the Guidelines, prior to the said implementation date.

5.0 Principles

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

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

(iv) be consistent with one another;

(v) take into account Labuan insurer's fiduciary duty to treat policyholders or clients fairly;

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

(vii) are consistent with the principles of fair valuation where possible and appropriate; and

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

5.2 Where Labuan FSA requires the Labuan insurer to determine the value of its insurance liabilities at any point in time other than at the end of its financial year, depending on the extent of the change in the insurer's business volume and profile, claims and underwriting process, 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 of the insurance liabilities where appropriate, such that the value of the insurance liabilities is reflective of the insurer's profile at that point in time and secures an overall level of sufficiency of policy reserves at 75% confidence level.

6.0 Definitions

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

(i) The '**best estimate**' value is the statistical central estimate value of the liabilities concerned. The principles for determining the best estimate values of the claim liabilities and the premium liabilities are subject to considerations of their materiality and the professional judgement of the Appointed Actuary, and shall reflect the individual circumstances of the Labuan insurer, for each class of business;

(ii) The '**provision of adverse deviation (PAD)**' is the component of the value of the insurance liabilities that relates to the uncertainty inherent in the best estimate. PAD is an additional component of the liability value 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. For the purpose of this valuation basis, the level of confidence shall be at 75% at an overall company level;

(iii) **Claim liabilities** refers to the obligation by Labuan insurers, 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 as well as direct and indirect claims-related expenses (e.g. investigation fees, loss adjustment fees, legal fees and labour charges) and the expected internal costs that the Labuan insurer expects to incur when settling these claims. The value of claim liabilities will consist of the best estimate value of the claim liabilities and the PAD calculated at the overall company level; and

(iv) **Premium liabilities** refers to the higher of:

(a) the aggregate of the Unearned Premium Reserve (UPR), for all lines of business; or

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(b) the best estimate value of the Labuan insurer's unexpired risk reserves (URR) at the valuation date and the PAD calculated at the overall company level. The best estimate value is a prospective estimate of the expected future payments arising from future events insured under policies in force as at the valuation date and also includes allowance for the insurer's expenses, including overheads and cost of reinsurance, expected to be incurred during the unexpired period in administering these policies and settling the relevant claims, and shall allow for expected future premium refunds.

7.0 Appointed Actuary Requirements

Appointment and Cessation

7.1 Every Labuan insurer 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 this Guidelines.

7.2 A Labuan insurer 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

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

[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).

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(h) holds any other qualifications 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

(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 insurer 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 insurance business;

(ii) continuously be informed on emerging developments in insurance 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 insurer at all times.

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7.4 A Labuan insurer 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 insurer 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 insurer giving to or receiving from, the Appointed Actuary notice of cessation.

7.5 The Labuan insurer 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 insurer utilises its group actuarial resources including those with multiple statutory appointments or engages of third party actuarial function~~, subject to Labuan FSA's approval~~, the Appointed Actuary shall maintain professional accountability and impartiality needed in providing his actuarial services to the Labuan insurer. The engagement of third party to undertake actuarial function 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 193 of LFSSA, Labuan FSA may remove an Appointed Actuary of a Labuan insurer if it reasonably believes that the Appointed Actuary is not carrying his roles and responsibilities in line with requirements or the spirit intended by this 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 this guidelines; and

(ii) 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 insurance liability valuation or reserving of the Labuan insurer, 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 premium 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 insurer's current and expected future financial condition. The Appointed Actuary must present clearly and discuss directly with the Board, the plausible threats identified by the Appointed Actuary to the financial condition of the Labuan insurer, recommendations to address those threats and observed actions of the senior management in response to the recommendations made in the previous year.

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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 insurer'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 insurer; and

(v) enable the Appointed Actuary to request and receive information or explanation from the senior management and officers of the Labuan insurer 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 within the Labuan insurer, 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.

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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 insurer's obligations under policies which it has written;

(ii) any major risks or concerns exist that may affect the insurer's insurance 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 insurer must establish and maintain separate fund for its general insurance funds for its Malaysian policies and non-Malaysian policies.

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

(i) 10% of the Labuan insurer's total gross written premium; or

(ii) USD 2 million,

whichever is lower.

8.3 Should in subsequent financial years, the gross written premium threshold specified in paragraph 8.2 be exceeded, the Labuan insurer must establish and maintain separate funds between its Malaysian policies and non-Malaysian policies.

9.0 Valuation Methodology

9.1 The Appointed Actuary shall be responsible to determine the level of reserves required, based on his professional valuation of the Labuan insurer's general insurance liabilities, for each class of business, using a basis which is no less stringent than that prescribed in this Guidelines. The valuation shall comprise:

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

(i) the best estimate value of the claim liabilities;

(ii) the best estimate value of the premium liabilities; and

(iii) a provision of adverse deviation for each of the best estimate values.

9.2 A Labuan insurer must measure the best estimate liabilities gross of reinsurance. The recoveries from reinsurance arrangements, which are to be determined net of any payments to the reinsurer, are to be measured separately.

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

9.~~2~~4 The value of the Labuan insurer's general insurance liabilities shall be the aggregate of the values of the Claim Liabilities and the Premium Liabilities.

9.~~3~~5 The investigation on the value of the Labuan general insurance liabilities by the Appointed Actuary shall be submitted as a report to the Board and senior management and shall be referred to as "The Report on Reserves for General Insurance Business" (the Report). The Appointed Actuary shall also disclose the extent of compliance with the requirements of this Guidelines and disclose 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 insurer. Labuan FSA may require for these additional information to be submitted as part of its supervision and monitoring of the insurers.

9.~~4~~6 The primary responsibility for the adequacy of the valuation of insurance liabilities rests with the Board and senior management of the insurer. The Board and the senior management are expected to discuss the results of the Report with the Appointed Actuary, including any non-compliance with the Guidelines. The Board is also expected to ensure proper and timely actions are undertaken based on these results.

10.0 Data and Information Used by the Appointed Actuary

10.1 The Principal Officer (PO) of a Labuan insurer is responsible to ensure that the insurer's database is properly maintained so that the data on business in force provided to the Appointed Actuary is accurate and complete.

10.2 The Appointed Actuary shall be given unrestricted access to the database and the 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 insurance business. The data shall include

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the insurance fund's experience and/or industry data where the Labuan insurer's own data is insufficient for the Appointed Actuary to make reasonable estimates. The PO shall also provide qualitative information on operational issues and other processes that are relevant to the Appointed Actuary in conducting the valuation of liabilities for the general insurance business.

10.3 The Appointed Actuary shall apply reasonable tests to satisfy himself that the data on business in force is accurate and complete. A check for both integrity and completeness of data should precede the valuation work.

10.4 The Appointed Actuary shall ensure that the data used gives an appropriate basis for estimating the insurance liabilities. The data includes the Labuan insurer's own exposure and claim experience data, and industry data where its own data is insufficient for the Appointed Actuary to make reasonable estimates. In circumstances where the industry data is sparse, the Appointed Actuary may rely on his professional judgement in making the estimates. In this situation, the Appointed Actuary shall justify his approach.

10.5 The extent to which the Appointed Actuary relies upon the data provided by the Labuan insurer and any limitations of such reliance, shall be clearly explained in the Report. Where the Appointed Actuary has reason to believe that the data is incomplete, inaccurate, or unreliable, the Appointed Actuary shall consider whether the use of such data may produce material biases in the results. In such circumstances, the Appointed Actuary shall make an appropriate allowance in his estimations and document the basis of such an allowance.

10.6 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 insurance 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 subline of business. The Appointed Actuary shall explain in the Report, the manner in which the risks have been pooled into homogenous groups.

10.7 Notwithstanding the grouping of risks that the Appointed Actuary may use in determining the general insurance liabilities, the value of the claims and policy liabilities shall also be reported for the lines of business (if applicable) as per **Appendix VI**.

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10.8 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.

10.9 Besides quantitative information, the Appointed Actuary shall also seek qualitative information from the Labuan insurer's management regarding underwriting policy and processes, claims policy and processes, reinsurance arrangements, policy 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. Failure to seek such qualitative information should be revealed in the Report including the reasons for this.

11.0 Case-by-Case Claims Reserves for Reported Claims[4]

11.1 Labuan insurer shall enter in its register of claims every claim intimation it receives from any source in respect of its policies, no later than one (1) month from the date of receipt of the claim intimation, unless it establishes that the claim does not relate to any of its policies. Where the particulars of a claim intimation are insufficient for it to determine whether the claim relates to its policy, the insurer shall make necessary enquiries to determine its liability.

11.2 The Labuan insurer 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.

11.3 Where the particulars of a claim intimation are insufficient at the time of entering a claim in the register of claims to enable the Labuan insurer 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. If such information is not available, the Labuan insurer should adopt a reasonable estimate acceptable to the Appointed Actuary.

11.4 An insurer 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 policy owner is admitted.

11.5 The Labuan insurer shall make adequate provision for legal fees which may be incurred to defend its repudiation of a claim where the claim is, without any

[4] Paragraphs 11.4 -11.7 above are intended for direct insurers and shall not be applicable to Labuan reinsurers.

doubt, outside the scope of its policy, 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.

11.6 The Labuan insurer 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 11.5 above.

11.7 The Labuan insurer 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.

11.8 The Labuan insurer shall review the provision for every outstanding claim at least once a year.

12.0 Computation of the Unearned Premium Reserve

12.1 A Labuan insurer shall determine its UPR in respect of general policies as an amount calculated on the basis of a method of computation **no less** accurate than the 1/8th method, applied to premiums for general policies. The "1/8th method" refers to the time apportionment method of computation which operates on the assumption that premiums accounted during each time period in a year are uniformly spread over that time period, where the time period is a quarter. In this regard, all policies are assumed to be in force for a duration of 12 months.

12.2 A Labuan insurer may adopt any method as the Appointed Actuary deems appropriate to compute non-annual policies.

12.3 The amount of UPR determined may be reduced for reinsurance ceded based on criteria set under paragraph 15.~~ Where the reinsurance is ceded to (re)insurers other than those licensed under the LFSSA, the reduction in the amount of UPR shall not exceed the deposits retained from the said reinsurers for reinsurance of general policies for which premiums are accounted during the preceding 12 months, provided the deposits are held by the insurer-~~

~~(i) as security for the said reinsurer's due performance of its obligations under the reinsurance contract; and~~

~~(ii) for a period of at least 12 months or until termination of the related liabilities of the said reinsurer, if earlier.~~

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12.4 Any arrangement made by an insurer, which treats a liability of a branch in Labuan IBFC in respect of any general policy as a liability, in whole or in part, of a branch outside Labuan IBFC, shall constitute reinsurance of those liabilities as if the branches were separate insurers and the arrangement was a contract between them. For this purpose, an insurer's head office shall be treated as a "branch".

13.0 Methods of Evaluating Best Estimates

13.1 The Report shall include a description of the methods used and the key assumptions made which may include those related to expenses, claims escalation, discounting, development factors and ultimate loss ratios selected, and reinsurance and non-reinsurance recoveries.

13.2 Where the Appointed Actuary has adopted a standard and well understood method such as the link-ratio method or the Bornheutter-Ferguson method to estimate the claim liabilities, a brief reference to the method would suffice. If a non-standard method or a modified standard method is used, the Appointed Actuary shall provide a detailed description of the method. Assumptions to validate the use of the non-standard method or a modified standard method shall also be furnished.

13.3 Whilst the Appointed Actuary has the discretion to use professional judgement in deciding on the methods and assumptions to be adopted for the valuation of the insurance liabilities, he shall ensure that the methods and assumptions adopted are appropriate, taking into account factors such as:

(i) the classes of business written;

(ii) the nature, volume and quality of the available data;

(iii) the circumstances of the Labuan insurer; and

(iv) considerations of materiality.

13.4 Due to the uncertainty in insurance business, it is appropriate for the Appointed Actuary to use more than one method to evaluate the best estimate values. The assumptions for each method shall be clearly disclosed in the Report. The results obtained by one method should be tested against that of the other method(s). Where results of different methods differ significantly, the Appointed Actuary shall comment on the likely reasons for the differences and explain the basis for the choice of the results.

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13.5 If the Appointed Actuary's valuation result is lower than the aggregate case-by-case claims reserves, and the Appointed Actuary wishes to take credit for the difference, he shall disclose why a release of reserves is justified.

13.6 For a reasonably homogeneous and stable portfolio, the URR may be estimated by extending the outstanding claim valuation model on the basis of claim frequencies, average claim costs and ultimate loss ratios or some similar measure of exposure. If this is done, the Appointed Actuary should adjust the assumptions to reflect the changes in risk exposure, underwriting standards, premium 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.

13.7 Where there are key differences in assumptions between the valuations of the Claim liabilities and the Premium liabilities, the Appointed Actuary shall provide justification(s) for these differences.

14.0 Methods of Evaluating PAD

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

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

14.3 To obtain a 75% level of adequacy at the Company level, the Appointed Actuary may allow for the diversification of risk due to correlations between the risks from 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. The methodology, data, assumptions and justification used to determine such credit, shall be clearly disclosed in the Report.

14.4 Diversification results obtained from a statistical method must be rationalised to ensure that such results are not due to data quality issues and/or not due to the adoption of inappropriate assumptions or statistical methods, rather than a valid statistical reason. The Appointed Actuary must consider the appropriateness of using a triangle of combined data and give due regard to the extent that underlying volatilities may be obscured. An insurer with business primarily concentrated in one particular class of business would expect very little or no

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diversification credit available compared to an insurer 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.

15.0 Outwards Reinsurance

15.1 A Labuan insurer must determine the expected net recoveries from reinsurance arrangements for each direct underlying contract by projecting the expected future cash flows from the reinsurance arrangement.

15.2 In determining the amount of recoveries from the reinsurance arrangement, a Labuan insurer must:

(a) assess the substance of the reinsurance arrangement in place by considering the reinsurer's contractual obligations to the Labuan insurer. This must include an assessment on renewability of the reinsurance contract and reviewability of the reinsurance premiums; and

(b) incorporate all relevant expected future cash flows, based on the assessment carried out under paragraph 15.2 (a), including future payments to the reinsurer, in relation to the particular underlying contract.

15.3 In estimating the future cash flows for the reinsurance arrangement, a Labuan insurer must:

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

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

15.4 Where it is not practical for a Labuan insurer to explicitly determine the expected net recoveries from reinsurance arrangements for each underlying contract according to paragraph 15.1 and the Labuan insurer uses a simplified method to derive the expected net recoveries from reinsurance arrangements, this must be documented.

15.5 For example, for some reinsurance arrangements which are non-proportional, the net reinsurance recoveries may be derived as the difference between gross and net best estimate liabilities.

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Question 2:

Do you have any other suggestion on the proposed parameter for estimating the reinsurance recoveries? Kindly provide justification for your suggestion.

~~15.1 Insurance liabilities may be determined net of reinsurance. The Appointed Actuary shall also consider the nature and spread of reinsurance arrangements, including significant changes to the arrangements, non-performance of reinsurance and the likelihood of obtaining the recoveries~~.

15.6 Non-reinsurance recoveries such as recoveries by sale of salvage, carriers or other third parties in respect of claims paid shall also be considered.

~~15.2 In instances where there are significant changes in the reinsurance arrangements or where outstanding reinsurance recoveries have a material impact on the estimate of the value of the insurance liabilities, the Appointed Actuary shall consider conducting the valuation on both gross and net of reinsurance basis.~~

15.7 The Appointed Actuary shall disclose how reinsurance and non-reinsurance recoveries have been taken into account in the valuation of the liabilities and the underlying assumptions of the treatment adopted. The underlying principle is that the amount of recoveries to be recognised shall be 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.

16.0 Inwards Reinsurance

16.1 This guidelines shall also apply to facultative inwards reinsurance. For treaty inwards reinsurance 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 reserves approximate to the best estimate and the 75% confidence level.

16.2 Due to the more volatile nature of reinsurer's claims experience and the lesser amount of data available to the reinsurers as compared to direct insurers, the reinsurer's own data may not be sufficient for the Appointed Actuary to reliably estimate the reserves for insurance 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 insurance. The

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Appointed Actuary shall clearly document the justification for his judgement in the Report.

16.3 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 reinsurer's own data and hence, may need to consider how the levels of PAD obtained for direct insurers could be adjusted to be applicable to reinsurance.

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

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

(ii) geographical location of risk; and

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

16.5 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.

16.6 The Appointed Actuary shall seek qualitative information and is expected to understand the nature of the business written currently and in the past, the trends in reinsurance premium and exchange commission rates, and the types of reinsurance programs, policy limits, insurer's deductibles, etc. This will allow the Appointed Actuary to make appropriate allowances in his valuation.

16.7 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.

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

16.9 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

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on paid claim data are often not reliable due to the volatility of the available information.

16.10 The Appointed Actuary may find it more appropriate to carry out the valuation on an underwriting year basis as the reinsurance data is usually presented in this manner. In producing reserve estimates on an underwriting year basis, the Appointed Actuary will need to determine the claim and premium 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 premium for each underwriting year, i.e. produce triangulations of claims and written premiums by underwriting year and develop all years to ultimate.

(b) As the claim liabilities derived from such underwriting year analysis will include liabilities relating to both incurred outstanding claims and unexpired risks relating to unearned premiums (particularly for the most recent underwriting year where most of the unearned premium 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 premium from the ultimate claim cost.

(ii) *Determination of premium liability*

(a) The premium liability should be derived based on the expected claim cost in respect of the unearned premium (as calculated in paragraph 16.10(i)(a) above) plus allowance for the reinsurer's expenses, including overheads and cost of reinsurance, expected to be incurred during the unexpired period in administering these policies and settling the relevant claims.

(iii) *Treatment of "unbooked" or "pipeline" premium*

(a) At the valuation date, there may exist outstanding premiums receivable by the reinsurer relating to completed underwriting years. The amount is usually most significant for the latest underwriting year. Such outstanding premiums, often referred to as

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"unbooked" or "pipeline" premiums, can arise from a number of sources, including the periodic nature of the payment of premiums by each cedant, delays in payment of premiums by cedants and reinstatement premiums paid by cedants.

(b) The Appointed Actuary shall consider the impact of pipeline premiums at the valuation date on the valuation of liabilities and make appropriate adjustments. The Appointed Actuary may use professional judgement to apportion the pipeline premium into earned and unearned components (coinciding with the outstanding claims and unexpired risk). He shall also allow for the reinsurer's expenses and commission loadings with respect to the pipeline premium.

17.0 Discounting

17.1 The Appointed Actuary shall exercise judgement 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 judgement. The Appointed Actuary shall not apply implicit discounting in his valuation. Once explicit discounting is applied to all valuation of liabilities, the reversal of the application of explicit discounting is disallowed. In any case, the Appointed Actuary shall ensure that the resulting reserve is sufficiently prudent to meet the liabilities.

17.2 Where discounting is deemed to be justified,~~the rate to be used in discounting the expected future payments for a line of business shall be the risk-free discount rate.~~ a Labuan insurer must use the discounting approach outlined in paragraph 17 to discount all future cash flows when determining the best estimate liabilities of the insurance contracts. The same yield curve is to be used to discount all cash flows arising from a particular contract, and its inter-dependent contracts.

17.3 A Labuan insurer must set assumptions for investment returns which are consistent with the rates used for discounting future cash flows.

17.4 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[5].

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 Malaysian Government Securities (MGS) for insurance contracts and the LTFR is 5%. The MGS 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.

[5] These parameters are adopted from the International Association of Insurance Supervisors (IAIS)'s Insurance Capital Standards and may be subject to periodic review. As a prudent practice, Labuan insurer should consider the development of the methodology and parameters as published by the IAIS from time to time when undertaking the valuation of its insurance liabilities.

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~~17.3 The risk-free discount rate to be used for Malaysian risks shall be derived from a yield curve, as follows:~~

~~(i) for durations of less than 15 years: zero-coupon spot yield of Malaysian Government Security (MGS) with matching duration; and~~

~~(ii) for durations of 15 years or more: zero-coupon spot yield of MGS with 15 years term to maturity, where duration is the term to maturity of each future cash flow. The MGS zero coupon spot yields shall be obtained from a recognised bond pricing agency in Malaysia, or any other source as may be specified by Labuan FSA. Where yields at certain durations are not available, these yields shall be appropriately interpolated from the observable data.~~

~~17.4 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 insurer's insurance liabilities may be used as the risk-free rate for discounting the non-Malaysian risks with the advice of the Appointed Actuary e.g. the United States' government zero-coupon spot yield, European's statutory zero-coupon spot yield.~~

Question 3:

Do you have any suggestion on the proposed methodology and parameters for the determination of base risk-free yield curve? Kindly provide justification for your suggestion.

17.5 Where 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.

18.0 Claim Escalation

18.1 The Appointed Actuary shall incorporate assumptions on claim escalation either explicitly or implicitly in his valuation. Where discounting of liabilities is used, the Appointed Actuary shall apply explicit claim escalation assumptions. The Appointed Actuary shall apply the following principles in considering the relevant factors for the purpose of determining the explicit claim escalation assumptions:

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

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(ii) Explicit allowance for claim escalation, in addition to that implied by historical claim 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 claim data;

(iii) Case reserves should be reasonably tested for adequacy by the Appointed Actuary to ensure that the discounting of liabilities will not expose the insurer to risk previously mitigated by the holding of undiscounted liabilities;

(iv) Results of the analyses of experience (please refer to section 20) shall be used to gauge the appropriateness of past claim escalation assumptions; and

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

18.2 The Appointed Actuary shall make appropriate allowance to take into account of future claim escalation which may be attributable to economic inflation factors such as wages and price inflation and other non-economic 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 factors may be determined by considering the insurer's own claim experience as well as known general industry trends in the lines of business written by the insurer. 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.

18.3 The Appointed Actuary shall disclose in the Report, the inflation rates, the source and the methodology from which they are derived.

19.0 Expenses

19.1 The Appointed Actuary shall make separate allowance for policy and claim administration expenses where such expenses are not included in the data being analysed for insurance liabilities. This allowance may vary between the claim and premium liabilities.

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19.2 Where possible, the Appointed Actuary should analyse historical levels of expenses when determining the appropriate future expense assumptions. Where the insurer's own expense analysis does not properly allocate expenses between policy issue, ongoing policy administration, claim establishment and claim management, the Appointed Actuary may give regard to industry benchmarks. However, such effects shall be clearly documented.

20.0 Analysis of Experience

20.1 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. This could include comparing the actual amounts incurred or paid during the year with the expected amounts from the valuation model.

20.2 The Appointed Actuary could also carry out comparisons on the number of claims, average claim size, claim frequency or any other analysis deemed appropriate. The results and interpretation of the comparative studies shall be maintained by the insurer. 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.

20.3 The Appointed Actuary shall consider the reasonableness of the results of his valuation and quantify the effects of changes in the valuation basis since the previous valuation. Where there has been material change in the method and assumptions adopted since the previous valuation, the Appointed Actuary shall justify the change.

21.0 Presentation of the Valuation

21.1 For the purpose of presentation of the best estimate values of claims and premium liabilities and the PADs in the Report based on the homogeneous classes as determined by in accordance with paragraph 13.6 of this Guidelines, the Appointed Actuary shall refer to the required format provided in **Appendices II** and **IV**. For further guidance, the workflows of the computation for claims and premium liabilities are also provided in **Appendices III** and **V**. The claims and premium liabilities shall also include reinsurance and pool inwards as required under paragraph 16.1.

21.2 The level of details to be provided by the Appointed Actuary will depend the size and complexity of the classes of business and considerations of materiality. In determining the level of detail to be provided, the Appointed Actuary must ensure that the report provides sufficient information that the user of the Report

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could have a proper understanding of the Report's assumptions, analysis and recommendations.

21.3 The Appointed Actuary shall provide detailed worksheets, relevant supporting documents and information leading to the estimation where upon Labuan FSA's request the Report needs to be verified by other suitably experienced Appointed Actuary.

22.0 Certification of the Valuation

22.1 Insurers writing general insurance business will be required to set up provisions for their Claims Liabilities and Premium Liabilities in accordance with this Guidelines and submit to Labuan FSA, the Report signed by the Appointed Actuary and the Principal Officer or his authorised signatory.

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

22.3 The report shall be submitted to the Board annually, not 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.

23.0 Reporting

23.1 Labuan insurers 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 by Labuan FSA. The Report shall be submitted to the following:

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

Telephone no: ~~087 591 200~~ 03-8873 2000
Facsimile no: ~~087 453 442 / 413 328~~ 03-8873 2209
Email: *sed@labuanfsa.gov.my*

23.2 Notwithstanding this, Labuan insurers are required to maintain a pro-forma valuation in the interim periods (e.g. half-yearly basis) which may be subject to

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be part of statutory returns to and supervisory review by Labuan FSA. The presentation of the valuation shall be in accordance with **Table I** in (Appendix II); **Table 2** (in Appendix IV); and **Table 3** (in Appendix VI).

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

24.0 Review of Provision for Claims Liabilities and Premium Liabilities

24.1 Where Labuan FSA has reason to believe that the provision for Claims Liabilities and Premium Liabilities made by the Labuan insurer is not appropriate having due regard to the business and risk profile of the insurer, Labuan FSA may require for appropriate justification to be provided by the Labuan insurer. This may entail Labuan FSA:

(i) recommending to the Labuan insurer a provision amount which it considers appropriate; or

(ii) requiring the Labuan insurer to obtain a valuation of its Claims and Premiums liabilities from another Appointed Actuary. The Appointed Actuary shall report directly to Labuan FSA within a period as Labuan FSA may specify.

24.2 The Labuan insurer shall inform the Appointed Actuary of all the relevant regulatory requirements relating to the valuation of liabilities. The Labuan insurer shall provide the Appointed Actuary with all the data and explanation he requires, and any other additional information and facts relating to its business which the insurer considers relevant.

24.3 The Labuan insurer shall not require the Appointed Actuary to discuss his findings or seek its agreement to his valuation results.

24.4 Labuan FSA may require, upon making the suggestion under paragraph 24.1(i), or upon considering the report made by the Appointed Actuary, require the Labuan insurer 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 accounts by altering the claims liabilities or premium liabilities to an amount that is recommended by Labuan FSA.

Labuan Financial Services Authority
XX XX 2022

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Appendix I(a)

The Report on Reserves for General Insurance Business for the Year Ended 20XX

Name of Insurer/Reinsurer : ___________________________
Name of Appointed Actuary : ___________________________

Section A: The Business Profile of the Insurer/Reinsurer

1. Describe the company's business portfolio. This may include a description of history, statistics such as a breakdown of premium income or case reserves by class of business etc.

2. 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 premium 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.

3. 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.

4. Describe the current reinsurance arrangements. This may include matters such as:

   - The structure of reinsurance programme and shares of participating reinsurers.
   - Any significant changes to the programme over recent years.

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- Consideration of any pending changes to the reinsurance arrangements which may have an impact on the net of reinsurance UPR or URR.
- Consideration of the potential risk of default of reinsurance recoveries based on publicly available information.

5. 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, consumerism etc.

Section B: Data

1. The Appointed Actuary should document the key features of the data in the report. The information should include:

- The basis on which the analysis has been carried out (i.e. underwriting or accident year, net or gross of reinsurance).
- 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 and discussion on the steps taken to test the consistency, accuracy and completeness of the data.
- Documentation of any adjustments made to the data to allow for abnormal items such as large losses, catastrophe losses, etc., including the nature, amount and rationale for the adjustment.
- Documentation of quantitative info which may have an impact on valuation.

2. Statistics

- Statistics should be built up to a minimum of seven years of data, where available. Where there are more data and/or appropriate for use, the statistical period should be extended.
- For longer tailed classes, more years of data may be needed for the analysis to be appropriate.

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3. Experience Analysis. Where possible the Appointed Actuary should discuss matters such as:

   - Trends and possible reasons for the trends in premium 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 Estimates of Claims and Premium Liability.
   - If a non-standard method has been used, provide a detailed description of how the method works and the key assumptions on which it is based.
   - Where more than one method is used, state the basis for the choice of results.
   - Details should be provided of any changes in the valuation methods used since the last valuation.
   - Justification for key differences in assumptions between valuations of Claims and Premium liabilities

2. Valuation of Provision of Adverse Deviation (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 at Company level to ensure 75% confidence level at Company level.

3. Presentation of the Valuation:

   - Summarise the results of the valuation of the claims and premium liabilities in accordance with Table 1 in **Appendix I** and Table 2 in **Appendix IV** respectively, and in Table 3 in **Appendix VI**.
   - Comment on the level of sufficiency of the Appointed Actuary's valuation of the reserves. Comment on the level of sufficiency of the Company's actual held provisions relative to the Appointed Actuary's valuation.
   - Provide reserves breakdown for reinsurance and pool inwards by sources of business, in particular where these are significant.

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Section D: Others

1. The Appointed Actuary should include the following specific details in the Report:

   - Details of the party that has commissioned the report, and if different, the addressee(s) of the report;
   - The name of the Appointed Actuary and the capacity in which the Appointed Actuary is acting;
   - 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; and
   - Any restriction placed on the Appointed Actuary in carrying out the valuation.

2. Compliance:

   - The Appointed Actuary should 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:

   - The Appointed Actuary should provide the definition of terms and expressions used in the Report which may be ambiguous or subject to wide interpretation.

4. Recommendations:

   - Where applicable, the Appointed Actuary should provide recommendations or comments to improve the reliability of future valuations of the insurance liabilities.
   - In cases where recommendations have been made, commentary should be provided on the responses given by the Board or Company management to those recommendations, and any follow up actions to be taken.
   - Where applicable, the Appointed Actuary shall comment on the actions taken by the Board in the current valuation year, in respect of the recommendation made by the Appointed Actuary in the previous year's valuation.

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Section E: Certification by the Appointed Actuary

The Appointed Actuary should provide a 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 obtained was reasonable;

2. I am satisfied that the credit given for reinsurance in the valuation of insurance liabilities has been based on sufficiently prudent assumption of the probability of future recoveries and reinsurer's default or inability to meet its obligations as per the terms of the reinsurance arrangements;

3. I assume full responsibility for the valuation results and this report in its entirety, including any part of the work which has been delegated to another person; and

4. 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 F: Certification by the Principal Officer (PO)

The PO should provide the following certification:
I hereby certify that:

1. I have satisfied myself that all procedures that may affect the determination of claim and premium liabilities, including but not limited to, computation of unearned premium reserves 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 have satisfied myself that the data provided to the Appointed Actuary is accurate and complete.

Signature : ____________________
Name : ____________________
Date : ____________________
Principal Officer

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Appendix I(b)

Supporting Information to the Report on Reserves for General Insurance Business

Valuation Assumptions and Analysis of Experience

1. Describe in detail and provide justification for the key assumptions made for the valuation methodology used, such as:

    - premium rates changes
    - development factors, ultimate loss ratios
    - expense rates
    - reinsurance and non-reinsurance recoveries
    - 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

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

    - actual experience of both Unexpired Risk Reserves 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 reserves;
    - 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 reserves held and actual claims paid in each development year against reserve 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.

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Supporting Worksheet and Appendices

1. Summary of Information

- The Appointed Actuary shall prepare a detailed summary of all the data and other information used to arrive at the valuation results. This could include information on:
- accounting (e.g. financial statements) and other internal financial information/reports;
- reinsurance arrangements;
- underwriting and claims management;
- other recoveries (e.g. subrogation);
- summary of claims data provided; 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 summary of the valuation results should be sufficiently transparent to enable another Appointed 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) and B(iii)] shall be calculated in accordance to section 11~~0~~ of this 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(iii).

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

3. *Gross 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 for the Fund Total, after considering diversification and other interactions between classes of business. *Gross FPAD of CL for each class of business* [i.e. FPAD(i), FPAD(ii) and FPAD(iii)] 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) and R(iii)] shall be calculated in accordance to section 15 of this 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(iii).

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.

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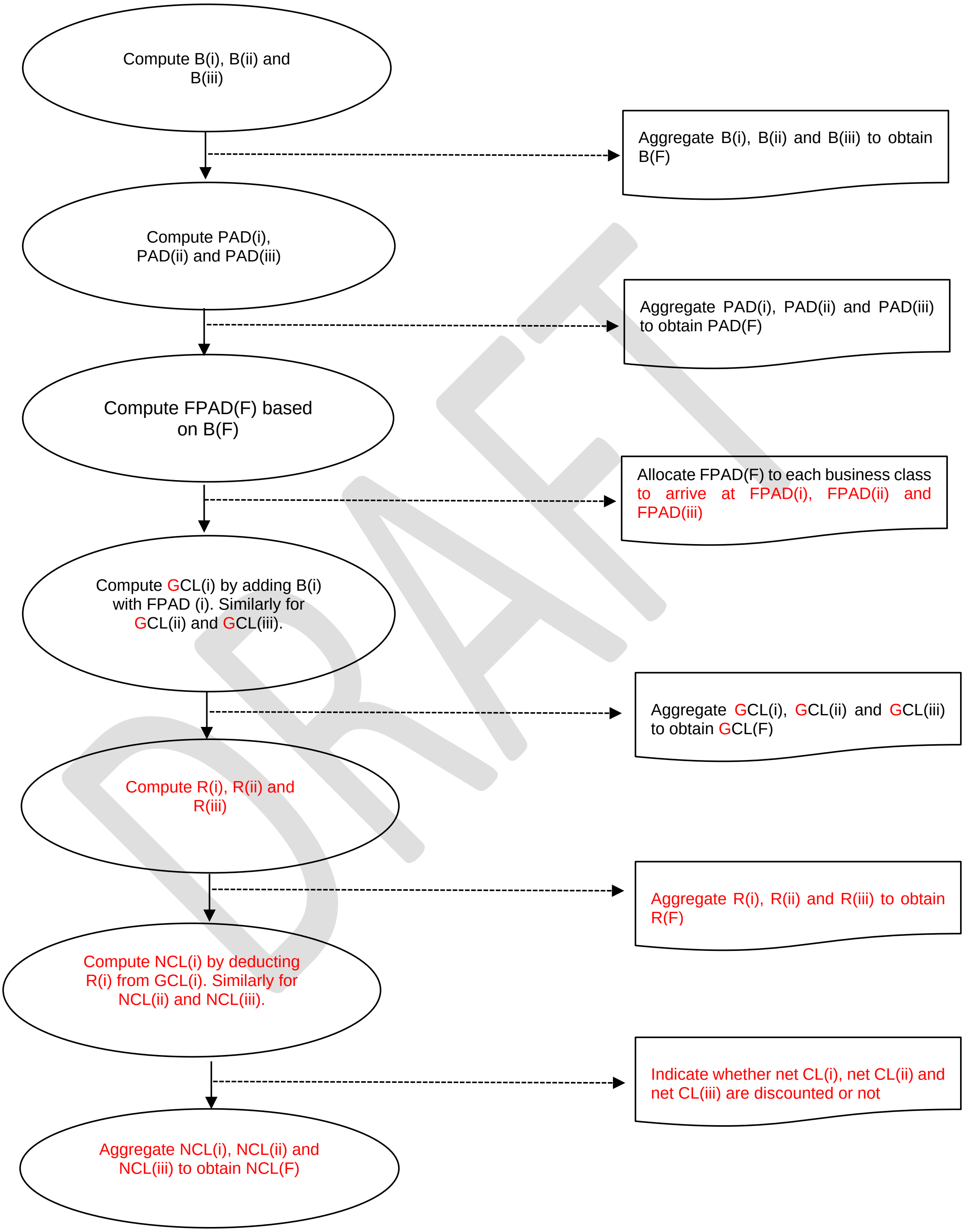
Table 1: Claims Liabilities (CL)

Business class	Gross best estimate of CL (I)	Gross PAD of CL at 75% confidence level (II)	Gross Fund PAD (FPAD) of CL at 75% confidence level (III)	Gross CL at 75% confidence level (IV) = (I) + (III)	Net Reinsurance Recoveries for CL at 75% confidence level (V)	Net CL at 75% confidence level (VI) = (IV) – (V)	Whether Net CL is discounted
1.	B(i)	PAD(i)	FPAD(i)	GCL(i) = B(i) + FPAD (i)	R(i)	NCL(i) = GCL(i) – R(i)	Yes/No
2.	B(ii)	PAD(ii)	FPAD(ii)	GCL(ii) = B(ii) + FPAD (ii)	R(ii)	NCL(ii) = GCL(ii) – R(ii)	Yes/No
3.	B(iii)	PAD(iii)	FPAD(iii)	GCL(iii) = B(iii) + FPAD (iii)	R(iii)	NCL(iii) = GCL(iii) – R(iii)	Yes/No
Total Fund	B(F)	PAD(F)	FPAD(F)	GCL(F) = B(F) + FPAD(F)	R(F)	NCL(F) = GCL(F) – R(F)	N/A

Appendix III

Workflow of the Computation of Table 1: Claims Liabilities



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Appendix IV

Guidance Notes for the Presentation of the Valuation of Premium Liabilities

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

1. *Gross Unearned Premium Reserve (UPR) for each class of business* amount [i.e. GA(i), GA(ii) and GA(iii)] shall be calculated in accordance to the current requirements in section 12~~1~~ of this Guidelines. *Gross UPR for the Fund Total* or GA(F) is the sum of gross UPR for each business.
   i.e. GA(F) = GA(i) + GA(ii) + GA(iii)

2. *Net reinsurance recoveries for UPR for each class of business* [i.e. R(i), R(ii) and R(iii)] shall be calculated in accordance to section 15 of this 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(iii)

3. *Net UPR for each business and the Fund Total* are the difference of respective entries for columns (I) and (II).
   i.e. NA(i) = GA(i) - R(i)
   NA(F) = GA(F) - R(F)

4. *Gross best estimate of the Unexpired Risk Reserve (URR) of each class of business* [i.e. B(i), B(ii) and B(iii)] shall be computed based on the definition of section 13~~2~~ 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)

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

6. *Gross 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 for the Fund Total after considering diversification and other interactions between classes. *Gross FPAD of URR for each business* [i.e. FPAD(i), FPAD(ii) and FPAD(iii)] 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.

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7. *Gross URR* for each class of business and the Fund Total at the adopted confidence level are the summation of respective entries for columns (IV) and (V).
   i.e. GC(i) ~~URR for business class 1~~ = B(i) + FPAD (i)
   GC(F) ~~URR for Fund total~~ = B(F) + FPAD(F)

8. *Net reinsurance recoveries for URR for each class of business* [i.e. r(i), r(ii) and r(iii)] shall be calculated in accordance to section 15 of this 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(iii)

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

10. *Premium liabilities for the Fund Total* or PL(F) is the higher of *net UPR for Fund* and *net URR at 75% confidence level for Fund Total*.
    i.e. Higher of NA(F) and ~~B(F) + FPAD(F)~~ NC(F)

    Premium liabilities for each class of business [i.e. PL(i), PL(ii) and PL(iii)] 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 at the 75% confidence level.

~~**Table 2: Premium Liabilities (PL)**~~

~~**Business class**~~	~~**UPR**~~ ~~**(I)**~~	~~**Best estimate URR**~~ ~~**(II)**~~	~~**PAD of URR at 75% confidence level**~~ ~~**(III)**~~	~~**Fund PAD (FPAD) of URR at 75% confidence level**~~ ~~**(IV)**~~	~~**URR at 75% confidence level ***~~ ~~**(V) = (II) + (IV)**~~	~~**PL**~~
~~1.~~	~~A(i)~~	~~B(i)~~	~~PAD(i)~~	~~FPAD (i)~~	~~B(i) + FPAD (i)~~	~~PL(i)~~
~~2.~~	~~A(ii)~~	~~B(ii)~~	~~PAD(ii)~~	~~FPAD (ii)~~	~~B(ii) + FPAD (ii)~~	~~PL(ii)~~
~~3.~~	~~A(iii)~~	~~B(iii)~~	~~PAD(iii)~~	~~FPAD (iii)~~	~~B(iii) + FPAD (iii)~~	~~PL(iii)~~

~~Fund Total~~	~~A(F)~~	~~B(F)~~	~~PAD(F)~~	~~FPAD (F)~~	~~B(F) + FPAD (F)~~	~~PL(F)*~~

~~*PL(F) refers to the higher of "A(F)" and "B(F) + FPAD(F)"~~

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Table 2: Premium Liabilities (PL)

Business class	Gross UPR (I)	Net Reinsurance Recoveries for UPR (II)	Net UPR (III) = (I) – (II)	Gross best estimate URR (IV)	Gross PAD of URR at 75% confidence level (V)	Gross Fund PAD (FPAD) of URR at 75% confidence level (VI)	Gross URR at 75% confidence level * (VII) = (IV) + (VI)	Net Reinsurance Recoveries for URR at 75% confidence level (VIII)	Net URR at 75% confidence level (IX) = (VII) – (VIII)	PL (X)
1.	GA(i)	R(i)	NA(i) = GA(i) – R(i)	B(i)	PAD(i)	FPAD (i)	GC(i) = B(i) + FPAD (i)	r(i)	NC(i) = GC(i) – r(i)	PL(i)
2.	GA(ii)	R(ii)	NA(ii) = GA(ii) – R(ii)	B(ii)	PAD(ii)	FPAD (ii)	GC(ii) = B(ii) + FPAD (ii)	r(ii)	NC(ii) = GC(ii) – r(ii)	PL(ii)
3.	GA(iii)	R(iii)	NA(iii) = GA(iii) – R(iii)	B(iii)	PAD(iii)	FPAD (iii)	GC(iii) = B(iii) + FPAD (iii)	r(iii)	NC(iii) = GC(iii) – r(iii)	PL(iii)
Fund Total	GA(F)	R(F)	NA(F) = GA(F) – R(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 "NA(F)" and "NC(F)"

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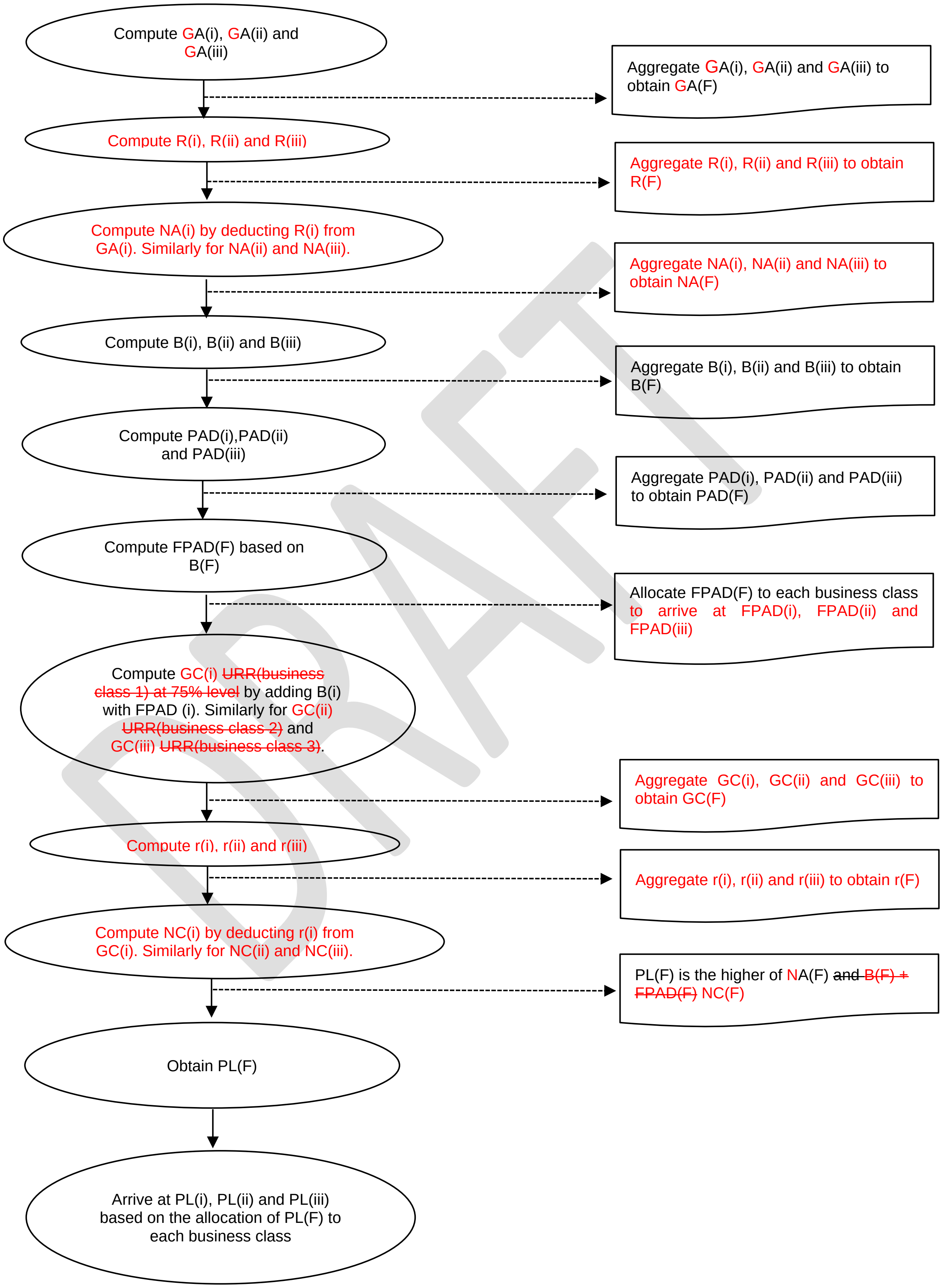
Appendix V

Workflow of the Computation of Table 2: Premium Liabilities



Appendix VI

Summary of Claims and Premium Liabilities
Table 3: Summary of Claims and Premium Liabilities

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

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Question 4:

Are there any areas of the forms (Appendices) that you think can be further rationalised? Kindly provide justifications for your suggestions.

Question 5:

Labuan FSA seeks comments on the overall proposed revision to the valuation requirement and on any matters relevant to be considered in relation to its implementation.

Feedback Submission

Labuan FSA invites interested parties to provide inputs on the Exposure Drafts on revised ICAF Phase I (valuation requirements) and Phase II (risk-based capital requirements). The feedback is to be emailed to carmelitta@labuanfsa.gov.my or billy@labuanfsa.gov.my by 29 April 2022.