
Global Enterprise Risk Management Designation Recognition Treaty

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Preamble

The Parties to this Treaty:

- A. **Recognising** the importance of enterprise risk management to the successful management of future risk and uncertainty for corporations and other entities;
- B. **Noting** that managing future risk and uncertainty is a principal objective of the actuarial profession;
- C. **Conscious** of the globalising nature of contemporary commercial enterprise and professional skills and knowledge;
- D. **Wishing** to facilitate the free international movement, and recognition of the skills, of members of the actuarial profession;
- E. **Considering** that developing and facilitating the international mobility of members of the actuarial profession and the exchange of ideas, knowledge and actuarial scientific experience will lead to a more capable, robust and influential actuarial profession;
- F. **Wishing** to facilitate the growth and spread of the actuarial profession within the sphere of enterprise risk management;
- G. **Recognising** the prior substantial efforts of the Society of Actuaries in establishing, protecting, developing, promoting and awarding the "CERA" (Chartered Enterprise Risk Analyst) designation, both within its own and other jurisdictions, access to the benefits of which efforts the Society of Actuaries has agreed to share with other actuarial associations in furtherance of the objectives of this Treaty as set out in this Preamble; and
- H. **Noting** that in Dublin, on 29 October 2007, certain of them entered into a Statement of Intent regarding the Establishment of a Global Enterprise Risk Management Qualification,

HAVE AGREED AS FOLLOWS:

Part A Definitions and interpretation

1. In this Treaty, unless the contrary intention appears:

"Acceding Party" means an entity which has been admitted as a party to this Treaty in accordance with the requirements laid down in Part C;

"Accredited Education Provider" means an entity that has been accredited as such by an Award Signatory in accordance with the requirements laid down in Part H;

“Award Signatory” means:

- (a) a Party that has met the requirements set out in Part E; and
- (b) from the date this Treaty is entered into, the Society of Actuaries;

“Award Signatory Applicant” has the meaning set out in clause 21;

“Board” has the meaning set out in Part B;

“Confidential Information” means information that:

- (a) is by its nature confidential;
- (b) is designated by a Party as being confidential; or
- (c) a Party knows or ought to know is confidential,

but does not include information which:

- (d) is or becomes public knowledge, other than by breach of this Treaty; or
- (e) is required by law to be disclosed;

“CPD” means the development of knowledge and of technical, personal and professional skills and competencies throughout an actuary’s working life;

“Designee” means a person to whom a Treaty Designation has been awarded;

“Disclosing Party” has the meaning set out in clause 97;

“Educational Review” has the meaning set out in clause Part L.1;

“Entitlement” means, as relevant in the circumstances, either licensed or authorised by appointment as agent. **“Entitled”** has a corresponding meaning;

“ERM” means enterprise risk management, namely the discipline by which an organisation in any industry assesses, controls, exploits, finances and monitors risk from all sources (including, but not limited to, financial, strategic, operational and insured event risks) for the purpose of increasing the organisation’s short- and long-term value to its stakeholders;

“ERM Educational Standards” means the enterprise risk management educational standards specified in Schedule A to this Treaty, as amended from time to time as provided for in Part L;

“ERM Syllabus” means the enterprise risk management syllabus specified in Schedule B to this Treaty, as amended from time to time as provided for in Part L;

"Force Majeure Event" means an event relating to a Party which:

- (a) was not contemplated by that Party and could not have reasonably been foreseen by that Party at the commencement of this Treaty (including, but not limited to, legislative changes);
- (b) is completely outside the control of that Party, its employees, officers and agents;
- (c) is not an event or occurrence contemplated by, or referred to in, this Treaty; or
- (d) is not caused by another Party to this Treaty, or its employees, officers or agents;

"Founding Party" means an entity that has signed this Treaty on the date it is first entered into and which has never withdrawn, or been expelled, from this Treaty under the provisions of Part R;

"IAA" means the International Actuarial Association;

"Initial Review Panel" means the panel constituted under clause 130;

"Intellectual Property Rights" includes all copyright and neighbouring rights, all rights in relation to inventions (including patent rights), registered and unregistered trademarks (including service marks), certification marks, collective marks and registered designs;

"Institute of Actuaries" means the body incorporated by Royal Charter on 29 July 1884 and having its principal place of business at Staple Inn Hall, High Holborn, London WC1V 7QJ;

"Owner" has the meaning set out in clause 97;

"Party" refers to a Founding Party and/or Acceding Party (as the context requires);

"Panels" means both the Initial Review Panel and the Review Panel;

"Professional Organisation" means an organisation or body which has the power to institute disciplinary actions against its members;

"Review Panel" means a panel constituted under Part U;

"Society of Actuaries" means the Illinois not-for-profit corporation located at 475 North Martingale Road, Suite 600, Schaumburg, Illinois, 60173;

"Treaty Administrator" means the Party appointed under Part V;

“**Treaty Contact**” has the meaning set out in clause 125;

“**Treaty Designation**” means the enterprise risk management designation described in Part D and which is awarded to a person by an Award Signatory in accordance with the terms set out in this Treaty;

“**USD**” means United States dollars; and

“**Vote**” has the meaning set out in Part X.

2. In this Treaty, unless the contrary intention appears:
 - (a) headings are for convenience only and do not affect the interpretation of this Treaty;
 - (b) words in the singular include the plural and vice versa;
 - (c) words importing a gender include any other gender;
 - (d) words importing persons include a partnership and a body whether corporate or otherwise and vice versa;
 - (e) where any word or phrase is given a defined meaning, any other form of that word or phrase has a corresponding meaning;
 - (f) an uncertainty or ambiguity in the meaning of a provision of this Treaty will not be interpreted against a Party just because that Party prepared the provision;
 - (g) all references to clauses are to clauses in this Treaty and any references to “Schedule” are to the Schedules to this Treaty and any references to “Part” are to parts of this Treaty.
3. If there is any conflict or inconsistency between the terms and conditions contained in the clauses of this Treaty and any part of the Schedules, then the terms and conditions of the clauses will prevail to the extent of the conflict or inconsistency.

Part B The Board

4. “Board” means:
 - (a) after this Treaty has been in effect for three (3) full years, a body consisting of one representative appointed by each of the Award Signatories that are in existence and bound by the provisions of this Treaty at that time; and
 - (b) at any time before this Treaty has been in effect for three (3) years, a body consisting of:

- (i) one representative appointed by each of the Parties referred to in clause 130 that are in existence and bound by the provisions of this Treaty at that time; and
 - (ii) one representative appointed by each of those Award Signatories that are in existence and bound by the provisions of this Treaty at that time, and are not referred to in clause 4(b)(i).
- 5. Any Party which is not a member of the Board from time to time in accordance with clause 4 may, through a single representative, attend meetings of the Board as an observer. For the avoidance of doubt, such representative or Party attending as an observer is not entitled to vote on any decision being made by the Board.
- 6. The Chairman of the Board shall be elected annually, by means of a simple majority vote, from amongst the representatives of the members of the Board. No individual may serve as Chairman of the Board for more than three (3) consecutive years.

Part C Becoming an Acceding Party

- 7. Following the making of this Treaty, any entity may become an Acceding Party to this Treaty upon fulfilling the requirements of this Part C.

Part C.1 Application to become an Acceding Party

- 8. An entity ("Applicant") may make a written application to the Board to become an Acceding Party to this Treaty. Such application must include evidence:
 - (a) of a resolution or similar agreement of its constituting body that the Applicant agrees to be bound by the terms of this Treaty and is satisfied that its internal governance arrangements (for example, its Constitution, rules and regulations) are such that it is able to meet all the obligations which would be imposed on it under this Treaty;
 - (b) that the Applicant has taken all administrative steps necessary to ensure that it will comply with the Treaty immediately upon accession; and
 - (c) that the Applicant is a Full Member Association of the IAA (as defined from time to time).
- 9. Following receipt of the application referred to in clause 8, the Board may make all reasonable due diligence inquiries, at the cost of the Applicant, in relation to the application they consider reasonably necessary in order to be satisfied that the Applicant will be able to meet its obligations under the Treaty.

10. For the purposes of the due diligence referred to in clause 9, the Board may, by simple majority, agree that one or more of the entities represented at that time on the Board will undertake that due diligence on behalf of all of them.
11. The Board will take reasonable steps to ensure that the due diligence referred to in clause 9 is completed within a period of ninety (90) calendar days following receipt of the application referred to in clause 8.
12. Following the completion of the due diligence in accordance with clauses 9 to 11 inclusive, a recommendation as to whether the Applicant should become an Acceding Party to this Treaty must be given to the Board by the Party or Parties undertaking that due diligence. Thereafter, the Board must consider such recommendation and determine whether the Applicant will be admitted as an Acceding Party, such motion being carried once 76% of the Votes have been cast in favour.
13. If the motion referred to in clause 12 is carried, the Applicant, upon signing this Treaty and being entered into the register by the Treaty Administrator in accordance with Part V, will be admitted as an Acceding Party.
14. Where the application of the Applicant to be admitted as an Acceding Party is refused, the Board will provide, within thirty (30) days of the vote referred to in clause 12 being completed, a statement of the grounds for refusing the application.

Part C.2 Appeal from decision on application to become an Acceding Party

15. If an Applicant is dissatisfied with the outcome of its application for admission as an Acceding Party under Part C.1, it may lodge a notice of appeal with the Treaty Administrator setting out its reasons for its appeal.
16. Following the receipt of the notice referred to in clause 15, the Treaty Administrator will provide a copy of notice of appeal and the material referred to in clauses 12 and 14 to each of the Parties who will then consider the Applicant's application.
17. Within thirty (30) days of providing the material referred to in clause 16 to the Parties, the Treaty Administrator will conduct a ballot as to whether the Applicant should be admitted as an Acceding Party, such motion being carried once 76% of the Votes have been cast in favour.
18. The decision of the Parties under clause 17 will be final and binding in respect of the particular application only and does not bind the Board or Parties in respect of any future application for admission as an Acceding Party by that Applicant.

Part D The Treaty Designation

19. The Treaty Designation shall be "CERA".
20. The Parties acknowledge and agree that, due to language and other variations between their respective jurisdictions, the Treaty Designation, when described fully in words, may vary as between Parties.

Part E Designation as an Award Signatory

Part E.1 Application for designation as an Award Signatory

21. A Party ("Award Signatory Applicant") may make a written application to the Board to become designated as an Award Signatory upon fulfilling the requirements of this Part E.
22. Such application must include evidence that the applicant:
 - (a) Party's internal governance arrangements (for example, its constitution, rules and regulations) are such that it is able to meet all the obligations of an Award Signatory under this Treaty;
 - (b) has taken all administrative steps necessary (including due diligence with respect to ascertaining whether Intellectual Property Rights in the Treaty Designation in its jurisdiction of domicile would be available) to ensure that it will comply with the Treaty immediately upon becoming an Award Signatory and will be in a position to continue to comply thereafter; and
 - (c) provides, or is in a position to provide (either itself or through an entity which would be accredited as an Accredited Education Provider), educational programs which, as a whole:
 - (i) cover a sufficient proportion of the ERM Syllabus; and
 - (ii) include examination and/or other assessment processes suitable for the assessment of a sufficient proportion of the ERM Syllabus by reference to the ERM Educational Standards;
 - (d) has a CPD strategy in place that includes ERM;
 - (e) has appropriate mechanisms in place for the review and appeal of a decision to refuse an application for the award of the Treaty Designation; and
 - (f) is a Full Member Association of the IAA (as defined from time to time).

Part E.2 Recommendation on application

23. Following receipt of the application referred to in clause 21, the Board may request that the Initial Review Panel or Review Panel (as relevant) makes all due diligence inquiries in relation to the application they consider reasonably necessary in order for the Board to be satisfied that the Award Signatory Applicant meets the relevant criteria for designation as an Award Signatory.
24. The reasonable costs of the due diligence referred to in clause 23 are to be borne by the Award Signatory Applicant.
25. The due diligence referred to in clause 23 must be completed within a period of sixty (60) calendar days following receipt of the application referred to in clause 21.
26. Following the completion of the due diligence in accordance with clauses 23 to 25 inclusive, the Initial Review Panel or Review Panel (as relevant) will make a recommendation to the Board. A copy of the recommendation so made must be provided to the Award Signatory Applicant.
27. Where an Award Signatory Applicant is a member of the Initial Review Panel or Review Panel (as relevant), that representative of the Award Signatory Applicant is not entitled to participate in the due diligence undertaken by the Initial Review Panel or Review Panel (as relevant) or vote on the recommendation to be made.
28. Any recommendation made under clause 26 must stipulate whether it is unanimous or, if not so unanimous, the number of representatives on the relevant Panel who vote in favour of the recommendation being made.
29. Where an Award Signatory Applicant is dissatisfied with a recommendation notified to it under clause 26, it may, within thirty (30) days of the date of such notice, submit to the Board a statement setting out the grounds for its dissatisfaction and stipulating a contrary case.

Part E.3 Voting on application

30. The Board will proceed to consider:
 - (a) any recommendation made under clause 26; and
 - (b) any statement given to them in accordance with clause 29,and vote (subject to clause 31) on whether the Award Signatory Applicant will be designated as an Award Signatory, such motion being passed:
 - (c) where the ballot is taken within the first three (3) years of this Treaty coming into effect, all Votes are cast in favour of the motion; and

- (d) thereafter, where 76% of all Votes cast are in favour of the motion.
- 31. A Party may not cast a Vote where it is the Award Signatory Applicant whose application for designation as an Award Signatory is the subject of the relevant ballot.
- 32. An Award Signatory Applicant shall be designated an Award Signatory on the date that the last Vote needed to carry the motion was cast.
- 33. Where the application of an Award Signatory Applicant for designation as an Award Signatory is refused, the Board will provide, within thirty (30) days of the vote referred to in clause 30 being completed, a statement of the grounds for refusing the application.

Part E.4 Obligations of an Award Signatory

- 34. An Award Signatory:
 - (a) must not; and
 - (b) must ensure that their Accredited Education Provider(s) (if any) do not, make any material changes to their educational programs and examination or assessment processes which have been determined under either:
 - (c) this Part E, as part of a Party's initial designation as an Award Signatory;
 - (d) Part F, as part of a review of a Party's designation as an Award Signatory; or
 - (e) Part H, as part of an accreditation of an entity as an Accredited Education Provider or review of such accreditation,(as relevant), to have met the requirements of the ERM Syllabus and ERM Educational Standards, unless any changes proposed to be made to such have first been reviewed under either Part F or Part H.2 (as relevant).
- 35. Each Award Signatory must, subject to the privacy laws applicable in the jurisdiction of the principal place of business of such Award Signatory, maintain a publicly available and current register of persons:
 - (a) to whom it has awarded the Treaty Designation; and
 - (b) who remain entitled to use that Treaty Designation.

Part F Review of Award Signatory designation

36. An Award Signatory must, at least once in every three (3) year period from the date of initial designation as an Award Signatory, submit to a due diligence review by the Interim Review Panel or Review Panel (as the case may be) of the education program used, under the terms of clause 55(c), as a part of the basis for the award of the Treaty Designation by that Award Signatory. The purpose of the review will be to determine if the education program as a whole continues to:
- (a) cover a sufficient proportion of the ERM Syllabus; and
 - (b) include examination and/or other assessment processes suitable for the assessment of a sufficient proportion of the ERM Syllabus by reference to the ERM Educational Standards.
37. The reasonable costs of the due diligence review referred to in clause 36 are to be borne by the Award Signatory.
38. Following the due diligence review referred to in clause 36, the Interim Review Panel or Review Panel (as the case may be) must provide notice of the results of its review to the Board and to the Award Signatory.
39. Where an Award Signatory is dissatisfied with the results of a review notified to it under clause 38, it may, within thirty (30) days of the date of such notice, make representations to the Interim Review Panel or Review Panel (as the case may be). The Interim Review Panel or Review Panel (as the case may be) must, within thirty (30) days of such representations being made, provide a summary of those representations to the Board and a copy of such summary to the Award Signatory.

Part G Withdrawal of Award Signatory designation

Part G.1 Withdrawal of Award Signatory designation

40. Subject to clause 46, if an Award Signatory:
- (a) following a due diligence review under clause 36 and the elapse of the period of time provided for in clause 39, is considered by an Interim Review Panel or Review Panel (as the case may be) not to have met the criteria set out therein in relation to its education program supporting the Treaty Designation; or
 - (b) is considered not to have complied with the requirements set out in Part I in relation to the awarding of a Treaty Designation; or

- (c) has not implemented changes to the ERM Syllabus and the ERM Educational Standards as notified to the Board by the Review Panel under clause 77(b),

the remaining members of the Board may by simple majority determine either that:

- (d) a notice be given to the Award Signatory to undertake certain acts, or refrain from doing certain things, in order to meet the criteria or promote compliance (as the case may be); or
 - (e) a notice of the kind referred to in paragraph (d) be given, accompanied by a warning that any future instances of failure to comply with such requirements will, within a stated reasonable time thereafter, result in the withdrawal of that Award Signatory's designation as an Award Signatory.
41. Any notice given by the Board to an Award Signatory pursuant to clause 40 must set out the reasons for the Board's determination.
42. If, having received a notice under clause 40(d) or clause 40(e), an Award Signatory has failed to address the matters in the notice within the stated reasonable time, the remaining members of the Board may, by a simple majority, determine that its status as an Award Signatory will be withdrawn.

Part G.2 Application for reinstatement as an Award Signatory

43. A Party whose designation as an Award Signatory has been withdrawn under the provisions of this Part may, at any time, re-apply for designation as an Award Signatory in accordance with the procedure laid down in Part E.
44. In the case of an application for reinstatement as an Award Signatory in accordance with clause 43, such application may be granted on either a conditional or unconditional basis at the discretion of those entitled to vote on the application under Part E.

Part G.3 General

45. The withdrawal of any Party's designation as an Award Signatory will not affect the rights or obligations of a Designee who was, prior to such withdrawal, awarded his or her Treaty Designation by that Award Signatory.
46. In recognition of the matters cited in Preamble G, the Society of Actuaries will not be subject to the provisions of Part G until a period of ten (10) years from the date this Treaty is entered into has elapsed.

Part H Accredited Education Provider

Part H.1 Accreditation

47. Subject to clauses 52, 86 and 87, an Award Signatory may accredit an entity as an Accredited Education Provider where, having conducted appropriate due diligence, the Award Signatory is satisfied that the entity's education program as a whole:
- (a) covers a sufficient proportion of the ERM Syllabus; and
 - (b) includes examination and/or other assessment processes suitable for the assessment of a sufficient proportion of the ERM Syllabus by reference to the ERM Educational Standards.
48. An Award Signatory may accredit more than one entity as an Accredited Education Provider in respect of the whole or part of the ERM Syllabus, whether in terms of its teaching, assessment or both.
49. Where an Award Signatory accredits more than one Accredited Education Provider, then each such relevant Accredited Education Provider must provide a relevant certification for the purposes of clause 55(c) in relation to the full scope of its accreditation.

Part H.2 Review of accreditation

50. Subject to clause 52, an Award Signatory must, at least once in every three (3) year period from the date of initial accreditation of an entity as an Accredited Education Provider, conduct a review of that entity's fitness to continue to be an Accredited Education Provider. Such review must comprise appropriate due diligence such that the Award Signatory can be satisfied as to whether or not the entity continues to:
- (a) provide an education program that meets all or part of the ERM Syllabus; and/or
 - (b) conduct examination or assessment processes suitable for the assessment of all or part of the ERM Syllabus to the ERM Educational Standards.
51. Following a review of the accreditation of an Accredited Education Provider, and having first complied with the requirements of clauses 86 and 87, an Award Signatory must, within a reasonable period, either:
- (a) re-affirm the entity as an Accredited Education Provider; or
 - (b) withdraw the entity's accreditation as an Accredited Education Provider,
- and, in both cases, must notify the Accredited Education Provider, the Board and the Treaty Administrator of such decision.

Part H.3 Delegation of accreditation and review

52. If a relevant motion supported by a simple majority of the Votes cast by the Board is passed, an Award Signatory must delegate the due diligence required under clauses 47 and 50 to the Review Panel. The results of the review must be reported by the Review Panel to the Board, and the relevant Award Signatory will be bound by the determination of the Review Panel.
53. Where the Review Panel has conducted the due diligence required under clauses 47 and 50 and certifies to the Board that it is satisfied that:
- (a) in the case of a due diligence under clause 47, the entity's education program as a whole:
 - (i) covers a sufficient proportion of the ERM Syllabus; and
 - (ii) includes examination and/or other assessment processes suitable for the assessment of a sufficient proportion of the ERM Syllabus by reference to the ERM Educational Standards; or
 - (b) in the case of a due diligence under clause 50, the entity continues to do the matters referred to in clauses 50(a) and (b),

the Award Signatory is entitled to rely on that certification for all purposes under this Treaty.

54. The Award Signatory must pay all reasonable costs associated with a due diligence conducted by the Review Panel under clause 52.

Part I Basis of award of Treaty Designation

55. Subject to this Part and clauses 86 and 87, an Award Signatory may award the Treaty Designation to any person on application who:
- (a) has achieved an educational level equivalent to that determined from time to time by the IAA as the minimum level required for a person to be described as a "Fully Qualified Actuary";
 - (b) has agreed in writing to be subject, in perpetuity and regardless of the person's membership status, to the code of ethics or professional conduct and disciplinary scheme of the Award Signatory in relation to professional services provided in the enterprise risk management field;
 - (c) has:
 - (i) been taught and examined on the ERM Syllabus; and

- (ii) attained the ERM Educational Standards in relation to the ERM Syllabus,

through educational arrangements which have met the conditions set out in this Treaty;
 - (d) has, subject to clause 56, given written consent, in perpetuity and regardless of the person's membership status, that permits each Party or any other Professional Organisation of which he or she is, or has been, a member, to communicate to any Party all public information regarding disciplinary complaints made, or disciplinary proceedings instituted, against him or her under the disciplinary rules of that Party or other Professional Organisation, either prior to or subsequent to the date on which consent was given; and
 - (e) has agreed that, if awarded the Treaty Designation, s/he will cease to use the Treaty Designation if it is withdrawn from him or her pursuant to Part J.
56. Clause 55(d) is subject to the privacy laws applicable in the jurisdiction of the principal place of business of the Party concerned.
57. The awarding of a Treaty Designation by an Award Signatory is subject to the Award Signatory being satisfied, on reasonable grounds, that the person has not been the subject of any disciplinary action(s) which might bring the Treaty Designation into disrepute.

Part J Withdrawal of Treaty Designation

58. An Award Signatory that has awarded a Treaty Designation to a Designee may withdraw the Treaty Designation from that Designee only where the Award Signatory has complied with clauses 86 and 87 and:
- (a) the Designee has been found to have engaged in unprofessional conduct under the Award Signatory's disciplinary rules and process; or
 - (b) the Designee has failed to pay any fees or charges or disciplinary penalties levied by the relevant Award Signatory, notwithstanding reasonable notice having been given to the Designee to do so; or
 - (c) the Award Signatory has received relevant information, whether or not as a result of the consent given by the Designee in accordance with clause 55(d), and the Award Signatory considers that withdrawal of the Treaty Designation from the Designee is appropriate and reasonable in all the circumstances.
59. An Award Signatory may withdraw a Treaty Designation from a Designee on either a permanent or temporary basis.

60. Where an Award Signatory withdraws a Treaty Designation from a Designee on either a permanent or temporary basis, it must, as soon as practicable, advise all Founding and Acceding Parties of such withdrawal.

Part K Recognition of Treaty Designation

61. For the purposes of this Treaty, the "recognition" of a Treaty Designation means its acceptance as a valid credential by a Party and, provided the holder is a member of that Party, the granting to the holder of such rights as are generally granted or accrue to that Party's members consequent upon, or arising out of, the award of a Treaty Designation by that Party to its members.
62. For the avoidance of doubt:
- (a) a Treaty Designation does not automatically entitle its holder to become a member of any Party of which he or she was not already a member at the time of being awarded the Treaty Designation; and
 - (b) this Treaty does not, in any way, affect the basis for a Party's decisions with respect to the admission of its members or the qualification of such persons.
63. Subject to the provisions of clause 62, each Party agrees to recognise, and not to hinder, the use, throughout its jurisdiction, of a Treaty Designation by any Designee, whether or not that Designee is a member of that Party.
64. The recognition provided for under this Part K will be given, regardless of whether the Treaty Designation is used in conjunction with any professional designation otherwise issued by a Party. Subject to the provisions of clause 62, that recognition must include unconditional recognition of:
- (a) the right of the Designee to use the Treaty Designation after the Designee's name in all circumstances; and
 - (b) (without any verification, test or further requirement) the completion by the Designee of all parts of the ERM Syllabus in accordance with the ERM Educational Standards.
65. Recognition of a Treaty Designation is without prejudice to the legal and professional rules or procedures in force in the country of a Party and such recognition does not exempt the holder of the Treaty Designation from complying with any other conditions for the practice of the actuarial profession which may be laid down in a country by the competent governmental or professional authorities.

Part L Amendment of ERM Syllabus and ERM Educational Standards

Part L.1 Amendment of ERM Syllabus and ERM Educational Standards

66. At least once every three (3) years from the date of initial signing of this Treaty, the Parties agree that the ERM Syllabus and ERM Educational Standards will be reviewed ("Educational Review") to ensure that each represents best contemporary practice in both ERM and ERM education and training.
67. At the time of an Educational Review, the Board may nominate either one or a subset of them to undertake the Educational Review and may further agree that such review will be conducted with the assistance of any other Party and/or the Review Panel.
68. The Party or Parties undertaking the Educational Review referred to in this Part will, at the conclusion of the Educational Review, make recommendations to the Board as to changes (including additions and deletions) to the ERM Syllabus and ERM Educational Standards (if any) which are considered necessary or desirable. These recommendations will be made available for consideration by all Parties.
69. Following the receipt of the recommendations referred to in clause 68, the Board must consider and vote on the proposed changes (if any) to the ERM Syllabus and ERM Educational Standards and may, by the casting of not less than 76% of the Votes of the Board in favour of the proposed changes, approve such proposed changes to the ERM Syllabus and ERM Educational Standards.
70. If changes to the ERM Syllabus and ERM Educational Standards are approved under clause 69, such changes will not take effect until:
 - (a) the elapse of a period of eighteen (18) months after the date of the last Vote being cast in favour of the changes; and
 - (b) any consequential amendments to the Intellectual Property Rights in the Treaty Designation have been approved by the relevant authorities.

Part L.2 Implementation of amendments to ERM Syllabus and ERM Educational Standards

71. Between the dates referred to in clause 70, each Award Signatory must use its best endeavours to:
 - (a) implement the changes to the ERM Syllabus and ERM Educational Standards where that Award Signatory itself provides an education program that meets all or part of the ERM Syllabus and/or conducts examination or assessment processes suitable for the assessment of all or part of the ERM Syllabus to the ERM Educational Standards; and/or

- (b) as relevant, negotiate with an entity designated as an Accredited Education Provider in relation to the implementation of the changes to the ERM Syllabus and ERM Educational Standards.
- 72. If, in the case of clause 71(a), an Award Signatory is unable to implement the changes to the ERM Syllabus and ERM Educational Standards within the time allowed under clause 70, the Award Signatory's rights under clause 86 to award the Treaty Designation may be suspended by a simple majority decision of the Board until such time as the changes to the ERM Syllabus and ERM Educational Standards are implemented. Where such a decision is taken by the Board, notice of such decision must be provided to the Award Signatory as soon as reasonably practicable, which notice must include the reasons for the decision.
- 73. If, in the case of clause 71(b), an Award Signatory is unable to negotiate the changes to the ERM Syllabus and ERM Educational Standards with an entity designated as an Accredited Education Provider within the time allowed under clause 70, the Award Signatory must:
 - (a) suspend that Accredited Education Provider's accreditation as such until such time as the changes to the ERM Syllabus and ERM Educational Standards are implemented (so far as necessary) by that Accredited Education Provider;
 - (b) during the period of suspension referred to in clause (a), not award the Treaty Designation to any person, where such designation would otherwise be dependent upon a certification by that Accredited Education Provider under clause 55(c).
- 74. Under this Part and subject to clause 75, a notice from an Award Signatory to the Board to the effect that it and/or its Accredited Education Providers have implemented the changes to the ERM Syllabus and ERM Educational Standards as voted upon under clause 69 is considered sufficient to allow the notifying Award Signatory to continue to award the Treaty Designation or be released from suspension from the awarding of the Treaty Designation.
- 75. The Board may, by a simple majority, instruct the Review Panel to review the implementation of the changes to the ERM Syllabus and ERM Educational Standards notified by an Award Signatory under clause 74 and provide a copy of such instruction to the Award Signatory, together with reasons for the Board's decision. In such a case, the Award Signatory providing the notice under clause 74 shall co-operate fully with the Review Panel in relation to such review.
- 76. Following the review referred to in clause 75, the Review Panel will confirm by written notice to the Board and the Award Signatory whether the Award Signatory and/or Accredited Education Providers have satisfactorily implemented the changes to the ERM Syllabus and ERM Educational Standards and, if not, will make recommendations for any necessary changes. The Review

Panel's notice must include reasons for its decision and, if relevant, recommendations for any necessary changes.

77. If the notice by the Review Panel under clause 76 is to the effect that the Award Signatory and/or Accredited Education Providers have not implemented the changes to the ERM Syllabus and ERM Educational Standards, then:
- (a) the Award Signatory providing the notice referred to in clause 74 will have a further period of three (3) months in which to make any necessary changes recommended by the Review Panel; and
 - (b) if, at the conclusion of the three month period referred to in clause 77(a), the Review Panel notifies the Board and the Award Signatory that the Award Signatory has not made the necessary changes recommended by the Review Panel, then the provisions of Part G.1 will apply. The Review Panel's notice must include reasons for its decision.
78. A Party whose rights are suspended under this Part is not entitled to any compensation for loss or damage, monetary or otherwise, in relation to, or arising out of, such suspension.

Part M Intellectual property rights

79. The Parties:
- (a) acknowledge and agree that the Treaty Designation is intellectual property which they share a common interest in promoting for the duration of their participation in the Treaty; and
 - (b) intend that the Treaty Designation will be registered and maintained as a certification mark where such marks are recognised and allowable under local law, or as such other form of proprietary mark as the Board deems advisable where a certification mark is not recognised or advisable, and that the Treaty Designation will be so registered in all jurisdictions that the Board deems necessary or advisable.
80. The Parties acknowledge and agree that:
- (a) a separate legal entity will be constituted under Swiss law, specifically an "Association" (otherwise commonly referred to as a "Swiss Verein") ("NewCo"), which entity will hold and administer the Intellectual Property Rights in the Treaty Designation, following the assignment of those rights by the Society of Actuaries to NewCo pursuant to clause 83; and
 - (b) NewCo will establish the certification (or other qualification) standards for those seeking to be Designees, and will establish and enforce (directly or

through Award Signatories designated as its agent) the terms regulating the use of the Treaty Designation by the Designees.

81. The Parties acknowledge and agree that NewCo will be established with:
- (a) a board of directors comprised of the same persons (in their representative capacity) as comprise the Board, from time to time, established in accordance with Part B of this Treaty; and
 - (b) a General Assembly comprising each Party, from time to time, of this Treaty.
82. The Parties further acknowledge and agree that the by-laws to be put in place as part of the establishment of NewCo will:
- (a) comprise, to the extent determined by the Board, relevant arrangements set out in this Treaty;
 - (b) in any event, not be inconsistent with the terms of this Treaty;
 - (c) ensure that each Party is Entitled to use (on a royalty-free basis for the term of that Party's participation in the Treaty), all such Intellectual Property Rights in the Treaty Designation as are necessary for each such Party to give effect to, and enjoy the benefits of, the terms of this Treaty (whether for itself, its Accredited Education Provider(s) (if any) or its Designees) within its jurisdiction of domicile; and
 - (d) ensure that the rights granted to a Designee under Part K remain in full force and effect notwithstanding the withdrawal or expulsion from this Treaty under Part R of the Party that awarded the Treaty Designation to any such Designee affected by such withdrawal or expulsion.
83. The Society of Actuaries, in order to give effect to this Part M and the provisions of this Treaty more generally, agrees to assign, as soon as reasonably practicable after this Treaty is entered into, all Intellectual Property Rights it holds and enjoys at the date this Treaty is entered into in the "CERA" (Chartered Enterprise Risk Analyst) designation to NewCo. The consideration to be paid to the Society of Actuaries for the assignment of Intellectual Property Rights under this clause is the sum of USD90,000.
84. Upon the assignment referred to in clause 83 being effected, the Society of Actuaries will invoice NewCo for the sum specified in clause 83, such sum becoming due and payable within thirty (30) days of such invoice.
85. (a) In order to fund NewCo's acquisition of the Intellectual Property Rights in the Treaty Designation, the Board will determine the amounts to be paid by each of the Parties in respect of existing or contemplated Intellectual Property Rights in the Treaty Designation that will inure to the benefit of such Parties, as follows:

Party	Proportion payable (USD)
The Institute of Actuaries of Australia	6,618
Canadian Institute of Actuaries / Institut Canadien des Actuaire	11,912
Deutsche Aktuarvereinigung e.V.	10,588
Institute des Actuaries	6,618
Israel Association of Actuaries	1,324
Institute of Actuaries of Japan	5,294
Colegio Nacional de Actuarios A.C.	2,647
Het Actuarieel Genootschap	3,970
Faculty of Actuaries	6,618
Actuarial Society of South Africa	3,970
Svenska Aktuarieföreningen	1,324
Institute of Actuaries	29,117
TOTAL	90,000

- (b) Further, the Board will determine, from time to time, the amount to be paid in respect of Intellectual Property Rights in the Treaty Designation by future Award Signatories in respect of the jurisdiction of domicile of any such Award Signatory.
86. The Parties acknowledge and agree that, upon the establishment of NewCo and the assignment of the Intellectual Property Rights by the Society of Actuaries under clause 83:
- (a) NewCo will be the legal owner of the relevant Intellectual Property Rights; and
- (b) a Party, following its becoming an Award Signatory, will be appointed as an agent of NewCo in its jurisdiction of domicile for the purposes of, and subject to complying with the procedure set out in clause 87:
- (i) awarding the Treaty Designation in accordance with either Part I or clause 142;
- (ii) withdrawing the Treaty Designation in accordance with Part J;

- (iii) accrediting an entity as an Accredited Education Provider in accordance with Part H.1;
 - (iv) re-affirming an entity as an Accredited Education Provider or withdrawing an entity's accreditation as an Accredited Education Provider in accordance with Part H.2; and
 - (v) suspending the accreditation of an Accredited Education Provider in accordance with clause 73(a).
- 87. Prior to taking any of the actions set out in clauses 86(b)(i)-(v), an Award Signatory must first submit details to NewCo of any such proposed action. If, following the elapse of a period of fourteen (14) days from the date of such submission, the Award Signatory has not been notified by NewCo that the Award Signatory is not authorised to proceed with such action as NewCo's agent, the Award Signatory may proceed, acting in the capacity of an agent of NewCo, to take the relevant action.
- 88. For the avoidance of doubt, clause 80 does not create any right or interest of NewCo or any Party in any materials produced or published by another Party as provided for under Part N.
- 89. Each Party agrees not to do, or cause or permit anything to be done, which might interfere with another Party's enjoyment of any Entitlement it holds to use any Intellectual Property Rights in the Treaty Designation in its jurisdiction of domicile.
- 90. If at any time a Party considers that any Intellectual Property Rights in the Treaty Designation have been infringed or are likely to be infringed, the Party will immediately notify NewCo in writing of such actual or suspected infringement. NewCo will have the sole right, in its absolute discretion, to take such steps as it may consider necessary for dealing with the matter and to commence an action either in its own name or in the joint names of NewCo and the relevant Party or Parties (as the law may require) and to control, settle or compromise such action as it sees fit. In this event, all amounts recovered by way of damages or otherwise will belong to NewCo. The Parties agree to co-operate with NewCo in respect of any steps taken, or action commenced, by NewCo pursuant to this clause.
- 91. Where a Party either withdraws or is expelled from this Treaty under the provisions of Part R:
 - (a) any Entitlement it holds to use Intellectual Property Rights in the Treaty Designation in its jurisdiction of domicile is automatically terminated; and
 - (b) that Party has no rights to any compensation for loss or damage (monetary or otherwise) in relation to the consequential loss of such

Entitlement to use any Intellectual Property Rights arising out of or in relation to the Treaty Designation in its jurisdiction of domicile.

92. A Party:
- (a) may not sub-license, assign, or otherwise dispose of, any Entitlement it obtains to use the Intellectual Property Rights in the Treaty Designation, without the consent of NewCo; and
 - (b) must ensure that any third party with which it contracts or otherwise deals in fulfilment of its rights or obligations under this Treaty is placed under similar obligations to those applying to any Entitlement granted to it by NewCo.
93. The board of directors of NewCo will determine the manner in which effect will be given to the provisions of this Part M, other than in respect of those matters which Swiss law requires to be determined by the General Assembly of NewCo.

Part N Marketing and promotion

94. Each Party acknowledges and agrees that the objectives of this Treaty, as set out in the preamble, will best be advanced where the qualifications, expertise and meaning of the Treaty Designation are fully understood in the global market.
95. Each Party agrees to use reasonable endeavours to market and promote the Treaty Designation (and the underlying qualifications and expertise that such designation represents) among its members and the business community generally, including (to the extent reasonably practicable) providing information about the Treaty Designation (and the underlying qualifications and expertise that such designation represents):
- (a) on that Party's website;
 - (b) in material relevant to the Treaty Designation or ERM published by an Accredited Education Provider;
 - (c) in marketing or promotional material relevant to ERM published or produced by a Party; and
 - (d) in any annual statement or report by a Party on its operations.
96. Each Party agrees not to take any action or publish any material that might reasonably be expected to bring the Treaty Designation into disrepute.

Part O Confidentiality

97. A Party ("Disclosing Party") must treat as confidential Confidential Information provided to it by another Party or Parties (as relevant) ("Owner") and must not disclose to any person the whole or any part of the Confidential Information, nor use the whole or any part of the Confidential Information for its own purposes or for the benefit of any third party, except where:
- (a) the Disclosing Party has received prior approval in writing from the Owner; or
 - (b) and only to the extent that, disclosure of the Confidential Information is reasonably necessary to enable the Disclosing Party to enter into and perform any obligations to a third party directly associated with the performance of the Disclosing Party's obligations under this Treaty. However, such disclosure is only permitted under this paragraph where the relevant third party is under, or is placed under, similar confidentiality obligations to those set out in this Part O to treat as confidential an Owner's Confidential Information; or
 - (c) the Disclosing Party is required by law to disclose the whole or any part of the Owner's Confidential Information, in which case it must immediately notify the Owner and take lawful steps to permit the Owner to oppose that disclosure to preserve the Owner's Confidential Information; or
 - (d) the Owner's Confidential Information is in, or enters, the public domain for reasons other than through a breach of a term of this Treaty; or
 - (e) disclosure is to the Disclosing Party's professional advisers, consultants, financiers and related bodies corporate, provided that those parties are under, or are placed under, similar confidentiality obligations to those set out in this Part O to treat as confidential an Owner's Confidential Information; or
 - (f) disclosure is to the Disclosing Party's officers, employees and agents who, the Disclosing Party must ensure, treat as confidential the Owner's Confidential Information as if personally bound by the provisions of this Part O.
98. In giving written approval for the purposes of clause 97(a), the Owner may impose such terms and conditions as are reasonably necessary in the circumstances.
99. This Part survives:
- (a) termination of this Treaty; and
 - (b) the withdrawal of a Party from this Treaty under Part R and continues to bind such Party in perpetuity.

Part P Force Majeure Events

100. If a Party's ability to undertake or perform its obligations under this Treaty is affected, or likely to be affected, by a Force Majeure Event:
- (a) that Party must immediately give to the other Parties notice of that fact, including:
 - (i) full particulars of the Force Majeure Event;
 - (ii) an estimate of its likely duration;
 - (iii) the obligations affected by it and the extent of its effect on those obligations; and
 - (iv) the steps taken to rectify it; and
 - (b) the obligations under this Treaty of the Party giving the notice are suspended to the extent to which they are affected by the Force Majeure Event as long as the Force Majeure Event continues.
101. A Party claiming a Force Majeure Event must use its best endeavours to remove, overcome or minimise the effects of that Force Majeure Event as quickly as possible.
102. If a Force Majeure Event continues for ninety (90) days, the procedures laid down in Part R may be applied.

Part Q Disputes

Part Q.1 General

103. If any dispute arises in connection with this Treaty, a Party may give written notice to the other Party or Parties that the dispute has arisen and request that the Parties meet to resolve the dispute.
104. The Parties agree that each will use its best endeavours to resolve any dispute arising between them during the course of this Treaty.
105. Despite the existence of a dispute, all Parties must continue to perform their obligations under this Treaty to the greatest extent possible.
106. Each Party must bear its own costs and expenses in relation to the resolution of a dispute arising in connection with this Treaty, unless an arbitrator determines otherwise in the course of arbitration.
107. Nothing in this Part Q prevents a Party from commencing proceedings for interlocutory relief.

Part Q.2 Mediation

108. If, notwithstanding attempts to resolve the dispute in accordance with clause 104, the Parties are unable to resolve the dispute within a reasonable time given the nature of the dispute, the Parties must attempt to resolve the dispute by mediation in a location to be agreed between the Parties (or, failing agreement, in London in accordance with the Mediation Procedure of the London Court of International Arbitration, except where that procedure conflicts with this Part Q.2, in which case this Part Q.2 will prevail.
109. If the Parties attempt to resolve a dispute by mediation:
- (a) the Parties must jointly appoint a mediator and agree to the mediator's remuneration, however, if the Parties do not agree upon the identity of a mediator and the mediator's remuneration:
 - (i) the mediator is the person appointed by; and
 - (ii) the remuneration of the mediator is the amount or rate determined by,

the Registrar of the London Court of International Arbitration, or his or her nominee, acting on the request of any Party; and
 - (b) the Parties must comply with the instructions of any mediator so appointed.
110. If a dispute is not resolved within sixty (60) days after the appointment of a mediator, or any other date agreed by the disputing Parties in writing, the mediation ceases.

Part Q.3 Arbitration

111. If the procedure set out in Part Q.2 has failed to resolve a dispute between the Parties, any Party to the dispute may submit the dispute to arbitration in accordance with the Arbitration Rules of the London Court of International Arbitration, except where that procedure conflicts with this Part Q.3, in which case this Part Q.3 will prevail.
112. The number of arbitrators will be one (1) and the place of arbitration will be as agreed between the Parties (or, failing agreement, in London).
113. If the Parties attempt to resolve a dispute by arbitration:
- (a) the Parties must jointly appoint an arbitrator and agree to the arbitrator's remuneration, however, if the Parties do not agree upon the identity of an arbitrator and the arbitrator's remuneration:
 - (i) the arbitrator is the person appointed by; and

(ii) the remuneration of the arbitrator is the amount or rate determined by,

the Registrar of the London Court of International Arbitration, or his or her nominee, acting on the request of any Party; and

(b) the Parties must comply with the instructions of any arbitrator so appointed.

114. In any arbitration proceedings, any Party may be legally represented.

115. The decision of any arbitrator will, in the absence of a manifest error of law, be conclusive and binding on the Parties.

Part R Continuing participation in Treaty

116. Subject to any continuing obligations set out in this Part, a Party may at any time terminate its membership of the Treaty, and so withdraw from participation in the rights and obligations created by it, by giving not less than six (6) months' written notice to the Treaty Administrator.

117. Subject to clause 119, if the Parties, by simple majority, determine in respect of a Party that:

(a) its internal governance arrangements fail materially to comply with the requirements of this Treaty; or

(b) it has otherwise failed materially to comply with a requirement of this Treaty for a period of at least one (1) year; or

(c) a Force Majeure Event has continued for a period of ninety (90) days and the Parties determine that such Force Majeure Event has had, or will have, the effect of preventing the Party affected by the Force Majeure Event being able materially to comply with the terms of the Treaty,

then that Party will be expelled from participation in the rights and obligations created by this Treaty immediately upon the giving of written notice to that Party.

118. Each Party acknowledges and agrees that the remedy of specific performance would not be appropriate to cure a matter set out in clauses 117(a)-117(c) inclusive and further agrees that such remedy is excluded to the maximum extent permitted by the relevant law.

119. In recognition of the matters cited in Preamble G, the Society of Actuaries will not be subject to the provisions of clause 117 until a period of ten (10) years from the date this Treaty is entered into has elapsed.

120. If a Party is no longer a Full Member Association of the IAA for any reason, then that Party is automatically deemed to have been expelled from participation in the rights and obligations created by this Treaty immediately upon such event occurring.
121. The withdrawal (under clause 116), or expulsion (under either clause 117 or clause 120), of a Party does not affect the rights or obligations of a Designee who was, prior to such withdrawal or expulsion, awarded his or her Treaty Designation by such Party.
122. A Party which withdraws (under clause 116), or is expelled (under either clause 117 or clause 120), from this Treaty has no rights to any compensation for loss or damage, monetary or otherwise, in relation to such withdrawal or expulsion.
123. A Founding Party which withdraws (under clause 116), or is expelled (under either clause 117 or clause 120) may subsequently apply to become an Acceding Party, but in that case will not regain the status or any of the rights of a Founding Party under any circumstances.
124. Each Party acknowledges and agrees that if it either withdraws or is expelled from continuing participation in this Treaty under the provisions of this Part, it must continue to recognise any and all Treaty Designations to which it was obliged to give recognition under the provisions of Part K prior to the effective date of such withdrawal or expulsion and that such continuing recognition will be in accordance with the requirements laid down in that Part.

Part S Treaty Contact

125. Each Party to this Treaty will, upon signing the Treaty, nominate a person ("Treaty Contact") in writing to act on its behalf as the relevant contact person in relation to all administrative purposes in connection with this Treaty, including for the purposes of giving and receiving notices.
126. A Party may, by notice in writing to the Treaty Administrator, change the person nominated to act as their Treaty Contact.

Part T Amendment or termination of Treaty

127. Any Party may propose that this Treaty be amended or terminated by giving written notice to the Treaty Administrator of such proposed amendment or termination. The Treaty Administrator must provide written notice of such proposed amendment or termination to the Parties.
128. Each Party acknowledges and agrees that the objectives of this Treaty, as set out in the preamble, are of such importance that it will use its best endeavours to negotiate in relation to such amendment or termination.

129. In relation to a proposed amendment of this Treaty, such amendment does not take effect unless, and until:
- (a) 76% of the Votes cast by all signatories bound by this Treaty at the relevant time; and
 - (b) 76% of the Votes available to be exercised by members of the Board,
- are cast in favour of the proposed amendment.

Part U Initial Review Panel and Review Panel

130. Immediately following the entering into of this Treaty, an Initial Review Panel will be constituted by each of the following signatories appointing one representative each to that panel:

The Institute of Actuaries of Australia
Canadian Institute of Actuaries / Institut Canadien des Actuaire
Deutsche Aktuarvereinigung e.V.
Institut des Actuaire
Israel Association of Actuaries
Institute of Actuaries of Japan
Colegio Nacional de Actuarios A.C.
Het Actuarieel Genootschap
Faculty of Actuaries
Actuarial Society of South Africa
Svenska Aktuarieföreningen
Institute of Actuaries
Casualty Actuarial Society
Society of Actuaries

131. Once ten (10) Parties have been designated as Award Signatories, the Initial Review Panel will automatically be disbanded and a Review Panel will thence be constituted by each of those ten (10) Award Signatories appointing one representative each to that panel.
132. Following the initial constitution of the Review Panel, thereafter any Party designated as an Award Signatory is entitled to nominate a representative to the Review Panel.
133. A signatory (in the case of appointments under clause 130) or an Award Signatory (in the case of appointments under clauses 131 and 132) is entitled, at any time, to appoint a representative in replacement of an earlier appointed representative by notice to the relevant Panel.
134. If, for whatever reason, a Party who has made an appointment to the Review Panel is no longer an Award Signatory, that Party will not be entitled to representation on the Review Panel.

135. The Chairperson of the Initial Review Panel is to be elected by a simple majority of the representatives on the Initial Review Panel.
136. The Initial Terms of Reference for each of the Panels are as set out in Schedule C to this Treaty. The Terms of Reference may be amended from time to time by resolution of the Board, such resolution being passed where 76% of all Votes cast are in favour.
137. In performing any of its functions under this Treaty, each of the Initial Review Panel and the Review Panel (as the case may be) has the power, by a simple majority of its members, to:
- (a) delegate the performance of a function to one of its members or to a third party; or
 - (b) co-opt another Party to this Treaty or third party to assist it in the performance of a function.

Part V Treaty Administrator

138. The Parties appoint, subject to satisfactory terms and conditions being agreed in writing, the Institute of Actuaries to administer the arrangements contemplated by this Treaty, in particular to maintain a register:
- (a) of current and past Parties to this Treaty, including the date the relevant Party became and, if relevant, ceased to be, a Party to this Treaty;
 - (b) of current and past Award Signatories, including the date the relevant Party became and, if relevant, ceased to be, an Award Signatory;
 - (c) of current and past Designees; and
 - (d) recording the matters put to a ballot in accordance with this Treaty and the outcome of each ballot.
139. From time to time, the Parties may agree additional administrative responsibilities of the Treaty Administrator.
140. The Parties may agree to appoint a different Party as Treaty Administrator and the prior and new Treaty Administrators will co-operate with respect to the transfer of responsibilities, registers and any other matters.
141. From time to time, the Board will determine the level of contributions to be paid to the Treaty Administrator by the Parties in order to support the administration of this Treaty on their behalf. In doing so, the Board may distinguish, as it sees fit, between:
- (a) Award Signatories and other Parties; and/or

- (b) those Parties eligible to be represented on the Board and other Parties.

Part W Leading and experienced practitioners and/or academics

142. The Board may choose to approve an arrangement whereby an Award Signatory may, subject to clauses 86 and 87, award the Treaty Designation to a number of its members who are leading practitioners and academics and who are considered, by virtue of their experience, to have demonstrated a level of knowledge and understanding of ERM comparable to that achieved by other Designees. In such cases the requirements of clause 55(c) (but not, for the avoidance of doubt, the other requirements of clauses 55 and 57) may be waived. The criteria and conditions applying to such an arrangement (including, but not limited to, the experience requirements, any alternative educational requirements, the time period during which awards may be made and any maximum number of awards) must be approved by a vote of the Board in which at least 76% of the available Votes are cast in favour. The Board must notify all Parties of any such arrangements that it has approved, together with the criteria and conditions applying.

Part X Voting

143. In this Treaty, "Vote" means a vote entitled to be cast in a ballot by a Party in accordance with this Part, whether or not the Party votes on the proposed motion.

144. For the purposes of this Part, "nFQA" means the number of "fully qualified actuaries" most recently notified formally to the IAA by a Party for the purposes of the calculation of dues owed to the IAA.

145. Subject to clause 147, the number of Votes entitled to be cast by a Party are determined by reference to the following formulas:

- (a) if, and for as long as, the Party is not represented on the Board, that Party is entitled to one Vote;
- (b) if the Party is represented on the Board and:
 - (i) the number of Parties represented on the Board is less than nine (9), then that Party is entitled to exercise three (3) Votes; or
 - (ii) the number of Parties represented on the Board is equal to or exceeds nine (9), then that Party is entitled to the number of Votes calculated in accordance with the formula set out in clause 146.

146. Subject to clauses 147 and 150, for the purposes of clause 145(b)(ii), a Party is entitled to the following number of Votes:

- (a) two (2) Votes; plus

- (b) where nFQA is greater than or equal to 200, one (1) Vote; plus
 - (c) one (1) Vote for every whole multiple of 400 by which nFQA exceeds 200, up to a maximum value of nFQA equal to 9,000; plus
 - (d) one (1) Vote for every whole multiple of 800 by which nFQA exceeds 9,000.
147. Where the calculation in clause 146 would otherwise result in any Party being entitled to a number of Votes that would exceed 12.5% of the total number of Votes able to be exercised by the Board, the number of Votes of any such Party or Parties will be successively reduced so that no Party is entitled to a number of Votes exceeding 12.5% of the resulting total number of Votes able to be exercised by the Board.
148. The number of Votes entitled to be cast by each Party under clause 145 is to be re-calculated by the Treaty Administrator in accordance with clause 145 following a change in either:
- (a) the composition of the Founding Parties, the Acceding Parties or the Board; or
 - (b) an Award Signatory's nFQA.
149. If there is a tie in a ballot held on any motion before the Board, the Chair of the Board shall have one (1) casting Vote.
150. The Parties agree that, within six (6) months following the first occasion on which there are in existence ten (10) or more Award Signatories each of which has awarded the Treaty Designation to at least fifty (50) persons, the Board will, in consultation with the Parties, review clause 146, and propose amendments as appropriate. The purpose of the review will be to examine whether the major determinant of the number of Votes calculated under that clause should be the number of Designees to whom the Treaty Designation has been awarded by each Award Signatory. Following such consultation, a ballot will be conducted as to whether clause 146 should be amended. Should a decision be taken not to amend the voting structure, the matter may be raised at any subsequent time by any member of the Board.

Part Y Liability, indemnities and warranties

151. To the maximum extent permitted by applicable law, no Party will be liable to another Party, its members or the members of another Party, or to any Accredited Education Provider for damages of any kind including, without limitation, direct, consequential, special, incidental or indirect damages of any kind arising out of this Treaty (including, without limitation, economic loss, loss of actual or anticipated profits, loss of Confidential Information, loss of privacy or failure to meet any duty of reasonable care or negligence), even in the event

of the fault, tort, strict liability, breach of contract, breach of statutory duty or beach of warranty by that Party, its officers, employees or agents and even if such Party, its officers, employees or agents have been advised of the possibility of such damages or such damages were foreseeable.

152. Each Party indemnifies, and keeps indemnified, the other Parties and their officers and employees from and against all claims, demands, summonses, actions, suits, proceedings, judgments, orders asserted or sought by third parties ("Claims"), or damages, costs, losses and expenses in connection with such Claims arising out of any negligence by the indemnifying Party or failure by the indemnifying Party to perform its obligations in accordance with the terms of this Treaty.
153. Each Party represents and warrants to the other Parties that it is free to enter into this Treaty and that it has not made, and will not after entry into this Treaty make, any agreement or commitment in conflict with any provision of this Treaty.
154. Each Party warrants to the other Parties that this Treaty creates legal, valid and binding obligations, enforceable against such Party by those other Parties in accordance with its terms.
155. The Society of Actuaries warrants that it is entitled to transfer the Intellectual Property Rights in the "CERA" (Chartered Enterprise Risk Analyst) designation in accordance with the obligation set out in clause 83.

Part Z Miscellaneous

156. Each Party acknowledges the mutual importance of the matters set out in the Preamble to this Treaty and agrees to act in good faith to give effect to the terms of this Treaty. In particular, each Party agrees that it will not:
 - (a) establish, or agree to establish, with another Party or other entity; or
 - (b) otherwise endorse in any way,

a designation or qualification relating to ERM which is in competition with the Treaty Designation. For the avoidance of doubt, this obligation does not prevent a Party from awarding membership or an actuarial designation or qualification to a person based, either wholly or partly, on that person being a Designee.
157. Each Party acknowledges and agrees that the restraint set out in clause 156 is necessary, and goes no further than is absolutely necessary, to:
 - (a) ensure the attainment of the fundamental objectives of the Treaty; and
 - (b) capture the economic benefits expected to be derived by each Party (both for itself and for its members) from the operation of the Treaty, which benefits formed the basis of each Party's incentive for entering into the

Treaty and which, absent the restraint set out in clause 156, would or may otherwise be lost or diminished over time.

158. Each Party agrees to use its reasonable endeavours to encourage those of its members to whom a Treaty Designation has been awarded and who are practising, or intend to practise, in another jurisdiction in which a Party operates, to apply for membership of the relevant Party in such jurisdiction.
159. This Treaty records the entire agreement between the Parties in relation to its subject matter.
160. If a court or tribunal finds that any provision of this Treaty has no effect or interprets a provision to reduce an obligation or right, this does not invalidate any other provision.
161. No failure to exercise or any delay in exercising any right, power or remedy by a Party to this Treaty operates as a waiver. A single or partial exercise of any right, power or remedy does not preclude any other or further exercise of that or any other right, power or remedy. A waiver is not valid or binding on the Party granting that waiver unless made in writing.
162. The rights, powers and remedies of a Party under this Treaty are in addition to, and do not exclude limit, any right, power or remedy provided by law or equity or by any agreement.
163. No Party can assign its obligations, and agrees not to assign its rights, under this Treaty without, in either case, prior approval in writing from the other Parties.
164. If any clause or part of any clause of this Treaty is in any way unenforceable, invalid or illegal, it is to be read down so as to be enforceable, valid and legal. If this is not possible, the clause (or where possible, the offending part of the clause) is to be severed from this Treaty without affecting the enforceability, validity or legality of the remaining clauses (or parts of those clauses) which will continue in full force and effect.
165. This Treaty is governed by the laws of Switzerland.
166. Each body or organ constituted by or under this Treaty has the power, unless otherwise specified elsewhere in this Treaty and subject to its Terms of Reference (if any), to determine for itself the manner in which it conducts its business including, but not limited to: determining the chairmanship of meetings; the required notice period for meetings; the holding of meetings by telephone, video or other electronic means of communications; and the conducting of a Vote by electronic means.
167. This Treaty may be executed in any number of counterparts. All counterparts taken together constitute one document.

Global Enterprise Risk Management Designation Recognition Treaty

IN WITNESS WHEREOF the undersigned representatives, being duly authorised, have signed this Treaty.

DONE at Hyderabad on 13 November 2009.

The Institute of Actuaries of Australia



FRED ROWLEY, Past President.

Canadian Institute of Actuaries / Institut
Canadien des Actuaire



Robert C W Howard, President

Institut des Actuaire



Thams BEHAR, President.

Deutsche Aktuarvereinigung e.V.



EBERHARD MÜLLER, CRO

Global Enterprise Risk Management Designation Recognition Treaty

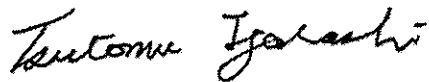
Israel Association of Actuaries



FRED ROWLEY

For and on behalf of OFER BRANDT, President.

Institute of Actuaries of Japan



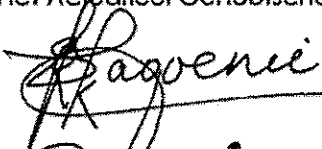
Teutomo Igarashi, President

Colegio Nacional de Actuarios A.C.


JUAN CARLOS PADILLA

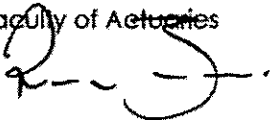
For and on behalf of Dr. MARIA DE LOS ANGELES YAÑEZ, Chairman

Het Actuarieel Genootschap



R.K. Sagoeni, President

Faculty of Actuaries



RONALD BOWIE PRESIDENT

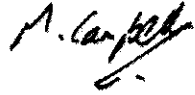
Actuarial Society of South Africa



PETER DOYLE PRESIDENT ELECT

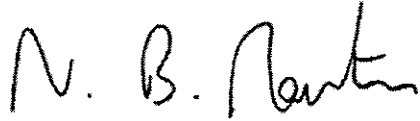
Global Enterprise Risk Management Designation Recognition Treaty

Svenska Aktuarieföreningen



MALCOLM CAMPBELL

Institute of Actuaries



President, N. B. MASTERS

Casualty Actuarial Society



John J. Kollar, President

Society of Actuaries



S. MICHAEL McLAUGHLIN, PRESIDENT.

Schedule A : ERM Educational Standards

DETAILED LEARNING OBJECTIVES

The list of detailed learning objectives is given below. On completion of the global ERM designation the candidate will have met IAA requirements and will be able to perform the activity described.

Each of the learning objectives has been rated. Bloom's taxonomy was used to determine the expected level of learning of each topic. This also provides a guideline as to the level at which examination of candidates for each topic should be aimed.

Bloom's Taxonomy

The following describes in some detail Bloom's taxonomy.

To assist students in understanding the level of learning expected from them, the following six level guide is provided, starting from the lowest or easiest level and increasing in complexity.

Students are not required to demonstrate the same level of learning for each Aim or of each Objective within each Aim. Consequently, an indication of the required level of learning is required to ensure that students focus on the key areas and that examiners, examinations, assessment and any other support materials are appropriately focused. Note that the level of learning is expected to be signalled by the use of the appropriate key word as discussed below.

1. Knowledge: Student recalls or recognizes information, ideas, and principles in the approximate form in which they were previously learned. This may involve the recall of a wide range of material, from specific facts to complete theories, but all that is required is the bringing to mind of the appropriate information. Examples of learning objectives at this level: know common terms, know specific facts, know methods and procedures, know basic concepts.

2. Comprehension: Student translates, comprehends, or interprets information based on prior learning. Comprehension is the ability to grasp the meaning of material. This may be shown by interpreting material (explaining or summarizing), and by estimating future trends (predicting consequences or effects). These learning outcomes go one step beyond the simple remembering of material, and represent the basic or core understanding. Examples of learning objectives at this level: understand facts and principles, interpret material, interpret numerical data, and translate verbal material to mathematical formulae.

3. Application: Student distinguishes, classifies, and relates the assumptions, hypotheses, evidence, or structure of a statement or question. Application refers to the ability to use learned material in new and concrete situations. This may include the application of such things as rules, methods, concepts, principles, laws, and theories. Learning outcomes in this area require a higher level of understanding than those under comprehension. Examples of learning objectives at this level: apply concepts and principles to new situations, apply laws and theories to practical situations, solve mathematical problems, demonstrate the correct usage of a method or procedure.

4. Analysis: Student breaks down material into components, understands organisational structures and the relationships of parts. Analysis refers to the ability to break down material into its component parts so that its organizational structure may be understood. This may include the identification of parts, analysis of the relationship between parts, and recognition of the organizational principles involved. Learning outcomes here represent a higher intellectual level than comprehension and application because they require an understanding of both the content and the structural form of the material, and the ability to look behind the facts and assumptions. Examples of learning objectives at this level: recognise unstated and implicit assumptions, recognise logical fallacies in reasoning, distinguish between facts and inferences, identify the relevancy of data.

5. Synthesis: Student originates, integrates, and combines ideas. Synthesis is the ability to put parts together to form a new whole. This may involve the production of a unique communication, a plan, or a set of abstract relations (scheme for classifying information). Learning outcomes in this area stress creative behaviours, with major emphasis on the formulation of new patterns or structure.

Examples of learning objectives at this level: 'propose a plan for ...', integrate learning from different areas into a plan for solving a problem, 'formulate a new scheme for ...'.

6. Evaluation: Student appraises, assesses, or critiques on a basis of specific standards and criteria. Evaluation is to do with the ability to judge the value of material for a given purpose. Learning outcomes in this area are highest in the cognitive hierarchy because they contain elements of all the other categories, plus conscious value judgments based on clearly defined criteria.

Key to assessing the learning outcomes for each Aim or Objective is that the desired levels of learning are clearly specified to all stakeholders involved - in particular students course preparers, tutors and examiners. The application of the hierarchy of learning objectives will require some judgement on the part of students and all those involved with the course.

The levels of learning can be illustrated by the verbs that can be used in the examination of student knowledge. For some topics, it is natural to test the student's knowledge of concepts. Verbs such as "define" or "list" require a student to simply reflect knowledge. However, the verb "analyse" requires a much higher level of understanding along with the ability to use the knowledge. The verbs that illustrate the level of learning are listed in the next table together with the numeric rating in Bloom's taxonomy.

The individual learning objectives are listed below together with the numeric rating. In some cases, there is a range (at most a difference of 1) for the target, rather than a single rating. This allows some tailoring to reflect local needs and emphasis. However, at least half of these cases must be taught and examined at the higher level in the range.

In order to illustrate this difference for each learning objective, a "*" symbol is added to the key verb to indicate that verbs in the next higher numerical level could also have been used. The actual numerical rating is shown for each learning objective. The verb in the learning objective corresponds to the lower rating where such a difference exists.

Within each section, it is expected that at least half of those learning objectives marked with a "*" symbol be met at the next higher rating. The appropriate verbs for the indicated as well as for next higher rating are indicated in the following table.

Those persons who are establishing educational programs or examinations should also consult the learning objectives along with this table to ensure the overall minimum required level is met within each section.

Level of Learning - key words					
1	2	3	4	5	6
Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
Define	Describe	Apply	Analyse	Construct	Appraise
List	Discuss	Demonstrate	Calculate	Deduce	Argue
State	Explain	Estimate	Categorise	Delineate	Assess
	Express	Extrapolate	Classify	Design	Choose
	Identify	Generalise	Compare	Develop	Consider
	Illustrate	Interpret	Conclude	Formulate	Decide
	Outline	Relate	Contrast	Modify	Judge
		Use	Detect	Plan	Justify
		Value	Differentiate	Prepare	Review
			Discriminate	Produce	Revise
			Distinguish	Propose	Validate
			Determine		
			Evaluate		
			Examine		
			Predict		
			Question		
			Recognise		
			Select		
			Solve		
			Test		

LEARNING OBJECTIVES WITH EXPECTED LEVEL OF LEARNING

Each person awarded the designation must have been examined on a substantial majority of the learning objectives to the level indicated. Over a rolling three year period, all learning objectives should be included in examinations to the level indicated.

Section 1: Enterprise Risk Management Concept and Framework

- (a) Describe* the concept of ERM, the drivers behind it and the resulting value to organizations. **(2-3)**
- (b) Explain* the principal terms in ERM. **(2-3)**
- (c) Analyse* an appropriate framework for an organization's enterprise risk management and an acceptable governance structure. **(4-5)**
- (d) Evaluate* an organization's risk management culture including: risk consciousness, accountabilities, discipline, collaboration, incentive compensation, and communication. **(4-5)**
- (e) Demonstrate* an understanding of governance issues including market conduct, audit, and legal risk. **(3-4)**
- (f) Demonstrate* an understanding of risk frameworks in regulatory and other environments (e.g. Basel II, Solvency II, Sarbanes-Oxley, COSO, Aus/NZ 4360, ISO 31000) and their underlying principles. **(3-4)**

- (g) Demonstrate* an understanding of the perspectives of regulators, rating agencies, stock analysts, and company stakeholders and how they evaluate the risks and the risk management of an organization. **(3-4)**
- (h) Propose how an ERM process can create value for an organization through better assessment of the organization's risk profile, possible reduction in economic capital, improvement in rating, etc. **(5)**
- (i) Relate* the risk and return trade-offs that result from changes in the organization's risk profile. **(3-4)**

Section 2: ERM Process (Structure of the ERM Function and Best Practices)

- (j) Demonstrate* how to articulate an organization's risk appetite, quantified risk tolerances, risk philosophy and risk objectives. **(3-4)**
- (k) Demonstrate* how to articulate a desired risk profile and appropriate risk filters. **(3-4)**
- (l) Assess the overall corporate risk exposure arising from financial and non-financial risks. **(6)**
- (m) Compare the relevance of risk measurement and management to various stakeholders including customers, regulators, government, company directors, professional advisors, shareholders and the general public. **(4)**
- (n) Demonstrate* an understanding of contagion and how it affects different stakeholders. **(3-4)**
- (o) Evaluate* the elements of a successful risk management function and a structure for an organization's risk management function. **(4-5)**
- (p) Determine* how financial and other risks and opportunities influence the selection of strategy and how ERM can be appropriately embedded in an entity's strategic planning. **(4-5)**
- (q) Demonstrate the application of a risk control process such as the Risk Management Control Cycle or other similar approach. **(3)**
- (r) Propose* ERM solutions or strategies to address real (case study) and hypothetical situations. **(5-6)**

Section 3: Risk Categories and Identification

- (s) Explain what is meant by risk and uncertainty. **(2)**
- (t) Describe different definitions and concepts of risk. **(2)**
- (u) Discuss* risk taxonomy. **(2-3)**
- (v) Investigate and interpret* financial and non-financial risks faced by an entity, including but not limited to: currency risk, credit risk, spread risk, liquidity risk, interest rate risk, equity risk, hazard/insurance risk, pricing risk, reserving risk, other product risk, operational risk, project risk and strategic risk. **(3-4)**

Section 4: Risk Modelling and Aggregation of Risks

- (w) Demonstrate* how each of the financial and non-financial risks faced by an entity can be amenable to quantitative analysis. **(3-4)**
- (x) Demonstrate* enterprise-wide risk aggregation techniques incorporating the use of correlation. **(3-4)**
- (y) Evaluate and select* appropriate copulas as part of the process of modelling multivariate risks. **(4-5)**
- (z) Demonstrate* the use of scenario analysis and stress testing in the risk measurement process. **(3-4)**
- (aa) Examine the use of extreme value theory to help model risks. **(4)**
- (bb) Demonstrate* the importance of the tails of distributions, tail correlations, and low frequency / high severity events. **(3-4)**
- (cc) Demonstrate* an understanding of model and parameter risk. **(3-4)**
- (dd) Evaluate and select* appropriate models to handle diverse risks, including the stochastic approach. **(4-5)**

Section 5: Risk Measures

- (ee) Apply* risk metrics to quantify major types of risk exposure and tolerances in the context of an integrated risk management process. **(3-4)**
- (ff) Demonstrate* the properties of risk measures (e.g. VaR and TVaR) and their limitations. **(3-4)**
- (gg) Analyse* quantitative financial and insurance data using modern statistical methods (including asset prices, credit spreads and defaults, interest rates, incidents, causes and losses). **(4-5)**
- (hh) Evaluate* best practices in risk measurement, modelling, and management of various financial and non-financial risks faced by an entity. **(4-5)**
- (ii) Analyse* credit risk as related to fixed income securities. **(4-5)**

Section 6: Risk Management Tools and Techniques

- (jj) Relate* the rationale for managing risk and the selection of the appropriate degree of hedging of risk. **(3-4)**
- (kk) Demonstrate* risk optimization and the impact on an organization's value of an ERM strategy. **(3-4)**
- (ll) Demonstrate means for transferring risk to a third party, and estimate the costs and benefits of doing so. **(3)**
- (mm) Demonstrate* means for reducing risk without transferring it. **(3-4)**
- (nn) Demonstrate* how derivatives, synthetic securities, and financial contracting may be used to reduce risk or to assign it to the party most able to bear it. **(3-4)**

- (oo) Determine* an appropriate choice of hedging strategy for a given situation (e.g., reinsurance, derivatives, financial contracting), which balances benefits with inherent costs, including exposure to credit risk, basis risk, moral hazard, and other risks. **(4-5)**
- (pp) Demonstrate* an understanding of the practicalities of market risk hedging, including dynamic hedging. **(3-4)**
- (qq) Define credit risk as related to derivatives; define credit risk as related to reinsurance ceded; define counter-party risk and demonstrate* the use of comprehensive due diligence and aggregate counter-party exposure limits. **(3-4)**
- (rr) Apply* funding and portfolio management strategies to control equity and interest rate risk, including key rate risks. Explain the concepts of immunization including modern refinements and practical limitations. **(3-4)**
- (ss) Analyse* application of ALM principles to the establishment of investment policy and strategy including asset allocation. **(4-5)**
- (tt) Identify and interpret* other key risks (e.g. operational, strategic, legal, and insurance risks) and uncertainty and demonstrate possible mitigation strategies. **(3-4)**

Section 7: Economic Capital

- (uu) Interpret* the concept of economic measures of value (e.g., EVA, embedded value, economic capital) and demonstrate their uses in corporate decision-making processes. **(3-4)**
- (vv) Apply* risk measures and demonstrate* how to use them in economic capital assessment. **(3-4)**
- (ww) Propose* techniques of allocating/appropriating the “cost” of risk/capital/hedge strategy to business units in order to gauge performance (e.g. returns on marginal capital). **(5-6)**
- (xx) Develop* an economic capital model for a representative financial firm. **(5-6)**

* This verb corresponds to the lower of the two Bloom’s ratings indicated (refer to Bloom’s level of learning and key words). This is the minimum capability expected and it is expected that at least half of these learning objectives will be taught or learned at the next level.

Schedule B : ERM Syllabus

Overall objectives

The Global ERM designation indicates expertise in all aspects of Enterprise Risk Management including a thorough understanding of:

- the concept of ERM
- the drivers behind ERM – governance, regulation, improvements in understanding of risk and techniques for measuring and managing risk, enterprise value protection and creation etc
- practical aspects of ERM, including all elements of a robust risk management framework (people, systems, processes) and its operation, and critical success factors
- standards and good practice in use around the world
- the different types of risk – financial (including liquidity, credit, equity market, interest rate), insurance (including catastrophe, mortality, product options), operational, and strategic
- the quantification of risk, including tools and techniques and supporting mathematics
- practices and techniques for the management of risk, including control, mitigation, transfer, avoidance, and exploitation of risk opportunities
- the economic value added by sound ERM
- important regulation and regulatory capital requirements

with particularly strong skills in the financial aspects of risk management.

In practice, much of this may be covered by a number of subjects in a wider course, with a final specific course providing the capstone for the designation.

For the risks currently developed enough to be modeled effectively - hazard, financial, credit and operational - designees should be proficient at the following tasks:

1. Independently develop reasonable models to quantify risk by type and in aggregate
2. Parameterize the models appropriately
 - a. Understand when historical data is applicable and when it is not (for example, interest rate policies can affect parameter selection)
 - b. Know when and how to apply current values (for example, calibration of arbitrage-free term structure models)

- c. Be able to apply informed judgment (for example, realizing that the default rate on interest only mortgage backed securities will be higher than on amortizing mortgages)
3. Run the models to obtain relevant results
 - a. Be able to focus on the key metrics
 - b. Select appropriate number of iterations
 - c. Be able to update the model as necessary
4. Explain the models and the results to a variety of audiences
 - a. Other technical ERM experts
 - b. Managers of specific types of risk
 - c. Individuals such as the CFO, CEO and board members who may not understand ERM very well

For other types of risk that do not currently lend themselves to sophisticated modeling - strategic and reputational - designees should understand the key issues related to these risks and be current on new developments in these areas.

In addition to modeling risk, global ERM designees should be able to perform the following tasks:

1. Implement the basic steps in the risk management process for any individual type of risk and in aggregate
2. Recognize how corporate governance issues can affect risk management within an organization, including organization structure and compensation incentives to accept or control risk
3. Utilize the standard methods for reporting risk to boards and senior management
4. Calculate regulatory capital requirements for insurers and banks
5. Understand how rating agencies incorporate risk management in determining ratings
6. Implement and explain economic capital models within an organization

Learning objectives

Each person awarded the designation must have been examined on a substantial majority of the learning objectives to the level indicated. Over a rolling three year period, all learning objectives should be included in examinations to the level indicated.

Section 1: Enterprise Risk Management Concept and Framework

- (a) Describe the concept of ERM, the drivers behind it and the resulting value to organizations.
- (b) Explain the principal terms in ERM.
- (c) Analyse an appropriate framework for an organization's enterprise risk management and an acceptable governance structure.
- (d) Evaluate an organization's risk management culture including: risk consciousness, accountabilities, discipline, collaboration, incentive compensation, and communication.
- (e) Demonstrate an understanding of governance issues including market conduct, audit, and legal risk.
- (f) Demonstrate an understanding of risk frameworks in regulatory and other environments (e.g. Basel II, Solvency II, Sarbanes-Oxley, COSO, Aus/NZ 4360, ISO 31000) and their underlying principles.
- (g) Demonstrate an understanding of the perspectives of regulators, rating agencies, stock analysts, and company stakeholders and how they evaluate the risks and the risk management of an organization.
- (h) Propose how an ERM process can create value for an organization through better assessment of the organization's risk profile, possible reduction in economic capital, improvement in rating, etc.
- (i) Relate the risk and return trade-offs that result from changes in the organization's risk profile.

Section 2: ERM Process (Structure of the ERM Function and Best Practices)

- (j) Demonstrate how to articulate an organization's risk appetite, quantified risk tolerances, risk philosophy and risk objectives.
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- (l) Assess the overall corporate risk exposure arising from financial and non-financial risks.
- (m) Compare the relevance of risk measurement and management to various stakeholders including customers, regulators, government, company directors, professional advisors, shareholders and the general public.
- (n) Demonstrate an understanding of contagion and how it affects different stakeholders.
- (o) Evaluate the elements of a successful risk management function and a structure for an organization's risk management function.
- (p) Determine how financial and other risks and opportunities influence the selection of strategy and how ERM can be appropriately embedded in an entity's strategic planning.
- (q) Demonstrate the application of a risk control process such as the Risk Management Control Cycle or other similar approach.

- (r) Propose ERM solutions or strategies to address real (case study) and hypothetical situations.

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Section 4: Risk Modelling and Aggregation of Risks

- (w) Demonstrate how each of the financial and non-financial risks faced by an entity can be amenable to quantitative analysis.
- (x) Demonstrate enterprise-wide risk aggregation techniques incorporating the use of correlation.
- (y) Evaluate and select appropriate copulas as part of the process of modelling multivariate risks.
- (z) Demonstrate the use of scenario analysis and stress testing in the risk measurement process.
- (aa) Examine the use of extreme value theory to help model risks.
- (bb) Demonstrate the importance of the tails of distributions, tail correlations, and low frequency / high severity events.
- (cc) Demonstrate an understanding of model and parameter risk.
- (dd) Evaluate and select appropriate models to handle diverse risks, including the stochastic approach.

Section 5: Risk Measures

- (ee) Apply risk metrics to quantify major types of risk exposure and tolerances in the context of an integrated risk management process.
- (ff) Demonstrate the properties of risk measures (e.g. VaR and TVaR) and their limitations.
- (gg) Analyse quantitative financial and insurance data using modern statistical methods (including asset prices, credit spreads and defaults, interest rates, incidents, causes and losses).
- (hh) Evaluate best practices in risk measurement, modelling, and management of various financial and non-financial risks faced by an entity.
- (ii) Analyse credit risk as related to fixed income securities.

Section 6: Risk Management Tools and Techniques

- (jj) Relate the rationale for managing risk and the selection of the appropriate degree of hedging of risk.
- (kk) Demonstrate risk optimization and the impact on an organization's value of an ERM strategy.
- (ll) Demonstrate means for transferring risk to a third party, and estimate the costs and benefits of doing so.
- (mm) Demonstrate means for reducing risk without transferring it.
- (nn) Demonstrate how derivatives, synthetic securities, and financial contracting may be used to reduce risk or to assign it to the party most able to bear it.
- (oo) Determine an appropriate choice of hedging strategy for a given situation (e.g., reinsurance, derivatives, financial contracting), which balances benefits with inherent costs, including exposure to credit risk, basis risk, moral hazard, and other risks.
- (pp) Demonstrate an understanding of the practicalities of market risk hedging, including dynamic hedging.
- (qq) Define credit risk as related to derivatives; define credit risk as related to reinsurance ceded; define counter-party risk and demonstrate the use of comprehensive due diligence and aggregate counter-party exposure limits.
- (rr) Apply funding and portfolio management strategies to control equity and interest rate risk, including key rate risks. Explain the concepts of immunization including modern refinements and practical limitations.
- (ss) Analyse application of ALM principles to the establishment of investment policy and strategy including asset allocation.
- (tt) Identify and interpret other key risks (e.g. operational, strategic, legal, and insurance risks) and uncertainty and demonstrate possible mitigation strategies.

Section 7: Economic Capital

- (uu) Interpret the concept of economic measures of value (e.g., EVA, embedded value, economic capital) and demonstrate their uses in corporate decision-making processes.
- (vv) Apply risk measures and demonstrate how to use them in economic capital assessment.
- (ww) Propose techniques of allocating/appropriating the "cost" of risk/capital/hedge strategy to business units in order to gauge performance (e.g. returns on marginal capital)
- (xx) Develop an economic capital model for a representative financial firm.

Representative Readings

The list below is a representative list of reading materials covering the learning objectives. Most items in the list are books that are readily available. In some cases,

some sections of the books cover more material (and at a greater depth) than is contemplated by the learning objectives.

An attempt has been made to identify which of the learning objectives are covered by each item in the reading list in a supplementary document in the form of a spreadsheet. This may be helpful to those persons who are designing education or examination materials.

It should be noted that large amounts of relevant material are being published every month in a variety of publications. Any syllabus that is developed will need to be structured so that it can be responsive to new knowledge by being flexible and easily changed.

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- Y. Tillinghast (2004), "Adding Value Through Risk and Capital"- an ERM Update on the Global Insurance Industry, Tillinghast ERM Survey.
- Z. Tilman, Leo M. (ed) (2003), *Asset/Liability Management of Financial Institutions: Maximizing Shareholder Value through Risk-Conscious Investing*, Institutional Investor.
- AA. Zhang, Song (2005), "Risk Aggregation for Capital Requirements Using the Copula Technique," *Risk Management Newsletter*, March 2005, Issue #4.

DESCRIPTION OF EACH PRIMARY REFERENCE

A. Society of Actuaries (2006), *Enterprise Risk Management Specialty Guide*.

This guide serves as a fundamental resource for a basic understanding of ERM. The guide starts with some basic definitions of ERM, discusses some drivers of change resulting in the development of ERM and the impact ERM has had on management practices and value creation. It briefly discusses the importance of risk culture, risk appetite and the key stakeholders in an ERM framework. In the final chapter, it provides examples of real-life situations in which implementing ERM has added value and avoided losses.

B. Doherty, N. (2000), *Integrated Risk Management: Techniques and Strategies for Managing Corporate Risk*, McGraw-Hill.

This book combines hazard and financial risks in a corporate finance framework to show how risk management impacts corporate value. The text covers the basic economic principles for risk and then draws parallels for insurance and corporate finance decisions, advocating a unified approach to maximize firm value. The underlying mathematics of risk, utility, portfolio theory, capital asset and derivative pricing models are described fully, and then incorporated into a framework for how corporations should both raise and invest funds. The text concludes with a case study of the securitization of catastrophe risk.

C. International Actuarial Association (2008), *Practice Note on Enterprise Risk management for Capital and Solvency Purposes in the Insurance Industry*.

This Practice Note has been developed by the IAA for insurers to support the Standards and Guidance materials developed by the IAIS for supervisors. It draws on industry experience, supervisors' supervisory practices, models and frameworks published by others and emphasises practical considerations. The Practice Note also seeks to help insurers assess risk framework maturity by reference to characteristics associated with different stages of development of risk management sophistication.

D. Crouhy, M., D. Galai, and R. Mark (2001), *Risk Management*, McGraw-Hill.

This textbook provides an overview of the various elements of risk management at a moderately strong technical level. After a few overview chapters aimed at providing a good orientation to ERM, the text goes into more detail on specific aspects of risk management such as regulatory capital requirements, market risk, credit risk, capital allocation, model risk and operational risk. Credit risk and market risk are examined in some depth, including mathematically-based technical treatment of the models used to measure these risks. The text is written from a banking orientation, but the concepts are for the most part applicable more generally.

Note: The regulatory information, unfortunately, is out-dated in this edition. It is expected that a new edition of the book will be published within the next year.

E. Lam, James (2003), *Enterprise Risk Management: From Incentives to Controls*, John Wiley and Sons.

This book, written by one of the first corporate Chief Risk Officers, provides an excellent introduction to Enterprise Risk Management. ERM is described as a balance between the quantitative side of risk management and the qualitative, of governance, side. The initial sections of the text provide the foundation of ERM and develop a framework for integrating ERM into an organization. In a subsequent section, each of the major types of risk facing an organization is explained, with case studies used to demonstrate lessons learned and best practices described to show how risk aggregation can be addressed effectively. This is not highly mathematical book, although some of the metrics discussed do involve advanced mathematics. It does serve as a very readable book detailing the experiences of a pioneer in ERM.

F. International Actuarial Association (2004), *A Global Framework for Insurer Solvency Assessment*.

This report was drawn up by a working party of the IAA and is meant to assist in the development of a global framework for insurer solvency assessment and the

determination of insurer capital requirements. It deals with the methods supervisors might use to assess the current financial position as well as to understand the possible future position of insurers. Its primary focus is on capital requirements and practices that strengthen the ability of a company to successfully manage its risk in a way to lessen its need for capital. The application of this report is intended both for direct writing insurers as well as reinsurers. The report contains useful educational material on a wide spectrum of risks (e.g. market, credit, underwriting) and three case studies are included for life, non-life and health insurance, respectively. The case studies describe the calculations that a company might undertake in order to determine total solvency provisions for various risks.

G. McNeil, A., R. Frey, P. Embrechts (2005), *Quantitative Risk Management*, Princeton University Press.

This book provides a rigorous mathematical exposition of many techniques useful in developing internal models for the purpose of risk management of banks and insurers. The development in most chapters ranges from a basic introduction all the way to advanced techniques resulting from recent research. In addition to the material from this book recommended for coverage for the global risk management credential, this book can serve as a useful practical reference in practice.

H. Society of Actuaries (2006), *Specialty Guide on Economic Capital*.

This is a 60-page research paper that provides a basic overview of economic capital and the considerations in implementing EC models within an organization. Its focus is on current practices among US insurers, as obtained through survey data, with detailed discussion of the practical issues that must be addressed as EC is put in place. The paper provides a good foundation at a moderate technical level.

I. Chapman, Robert J. (2006), *Simple Tools and Techniques for Enterprise Risk Management*, John Wiley and Sons.

This book is a qualitative introduction to Enterprise Risk Management, written from the perspective of a generic organisation rather than having specific relevance to financial services companies. Its key areas of focus are corporate governance and regulatory frameworks, particularly in the UK but also touching on US and Canada, and detailed explanations of the key steps of the overall ERM process. It also devotes a chapter to each of the key risk areas; these are written from a generic business perspective, which helps to demonstrate the wide-ranging importance of ERM from more than just a financial viewpoint.

Schedule C : Initial Terms of Reference for Interim Review Panel and Review Panel

Overview

These Terms of Reference describe the four main quality assurance processes overseen or conducted by the Review Panel:

- (a) the initial review of applicants for Award Signatory status conducted by the Interim Review Panel;
- (b) review of Award Signatory status conducted every 3 years by the Review Panel;
- (c) Board-directed review of Award Signatories; and
- (d) annual external monitoring conducted by two external reviewers who will submit a report to the Review Panel.

Initial, 3 year and Board-directed reviews of applicants and Award Signatories:

1. The Review Panel (the "Panel") makes recommendations to the Board concerning applications by signatory Associations to become "Award Signatories" under Part E1 of the Treaty, and periodic reviews under Part F. The Panel is the body charged with ensuring appropriate Quality Assurance processes and procedures in terms of the Treaty.
2. The Panel will not accredit education providers. Where appropriate, education providers will be accredited by Award Signatories. However, if the Board so decides in a particular case, the Panel may be required to conduct a review of educational arrangements, whether managed directly by the Award signatory, or involving an accredited education provider, under the terms of Part H3.
3. A single Panel is to be appointed. Members of the Panel serve voluntarily, and in their personal capacity, when nominated by a signatory actuarial Association that is entitled to do so under Part U of the Treaty. Each Award signatory will be required to nominate one Panel member. Members of the Panel must be fully qualified actuaries of the signatory association making the nomination.
4. In respect of each application for Award Signatory status, the Panel may delegate two or more of its members to carry out work on behalf of them all. A single Panel member must be nominated to lead that work, by the Panel. The exact process and timing of the investigation will be decided by the leader of the Panel. Subject to a majority vote, the Panel may invite any other person or persons (who are not members of the Panel) to assist the delegated Panel members, provided they are considered to have relevant skills (including language skills) and/or experience.
5. When requested to do so by a sufficient majority of the Board, the Panel will examine evidence obtained from:
 - (a) a Treaty signatory (the "applicant"); and/or
 - (b) an educational "Provider" that has sought or gained accreditation by the

- applicant in relation to any part of the educational requirements of CERA, for the purpose of determining the applicant's potential or actual status as an Award Signatory, and to draw conclusions and make recommendations in regard to that status, on the basis of that evidence.
6. In order to determine whether a proposed education arrangement is likely to be sufficient to meet the agreed requirements for the CERA designation, the Panel will compare the proposal to the current CERA designation template. This template describes in detail the topics that need to be covered and what level of learning for each topic would be appropriate, and lists examples of readings that would cover the material adequately.
 7. The process will aim to be effective, timely and economical. An estimate of any anticipated costs incurred by the Panel will be made available to the subject association before investigation, and will be adhered to in all reasonably foreseeable circumstances. Any excess costs, or costs of compliance with a review, will be borne by the applicant association as specified in the Treaty. The costs will exclude volunteer panel member and reviewer time.
 8. The recommendation of the Panel that results from the work will be subject to appeal, either on a substantive or a procedural basis as set out in the Treaty.
 9. A re-validation review will be undertaken every 3 years for all Award signatories, in accordance with the relevant Treaty provisions.

Initial, 3 year and Board-directed review process:

10. The Panel will seek and obtain sufficient evidence which if satisfactory would be a sufficient basis upon which to form an opinion as to the suitability of the applicant to be an Award Signatory.
11. The initial evidence requirement must include a description of:
 - (a) the overall process to be used in deciding to grant the CERA designation to any individual;
 - (b) the actuarial association itself, and any third-party education provider(s) and/or examiner(s) that will be used;
 - (c) the syllabus and course(s) on which the award will be based (outline only, at this stage);
 - (d) the proposed oversight or other process(es) that will be put in place to monitor quality standards over time.

Appendix A contains a more detailed specification of material that should be provided to support an application for Award status, concerning the actuarial association itself, and any third-party education provider(s), as relevant. Appendix B sets out detail with regard to syllabus coverage and the minimum standards of assessment of candidates for the CERA designation.

12. Such evidence must be presented by the applicant (at the outset) in any of the following principal languages {English, French, and Spanish}. Further languages

may be added to these terms of reference, or languages removed, at the discretion of the Board from time to time.

13. Further supporting documentation may be provided initially in original language. If they consider it necessary, the Panel may ask for translations of key documents. Such supporting documentation might include:
 - (a) detailed course content, learning objectives, supporting reading etc;
 - (b) sample examination papers and specimen solutions;
 - (c) a description of the marking process and pass mark setting standards;
 - (d) an outline of quality assurance processes used by the Award Signatory.

If this information is requested, the task (and/or expense) of translation will fall to the applicant. The Panel will take this into account when making requests for translations.

14. If the applicant actuarial organisation is providing all of the educational services (educating and examining the candidates) themselves, then the Panel will examine that evidence, with a view to deciding whether the educational arrangements made by the applicant are likely to meet the underlying requirements of covering a sufficient proportion of the CERA Syllabus and achieving the Learning Objectives, as set out in the Treaty, to a satisfactory standard.
15. If the applicant actuarial organisation is delegating all or part of the educational process to another entity, then the Panel will also review the oversight process that the applicant has in place to assure that the outside provider(s) meet(s) the underlying requirements of the CERA designation; taking into account the way it intends to use or rely on the assessment/examination processes of the external provider(s).
16. Where the review is being performed at the instructions of the Board under Part H3, the work team will request whatever further evidence considered appropriate. All such requests will be directed to or via the applicant. The work team may ask that this evidence be presented in writing or orally, and any party to the educational arrangements of the applicant will be expected to comply with all reasonable requests of this type for this purpose. The capacity to fulfil this requirement must therefore be incorporated into any contracts between the applicant and any relevant Education Provider, where possible, at the outset of their contractual relationship for the purposes of the CERA designation. The reasonable costs of such investigation will be disclosed to the applicant before the further investigation proceeds, and will then be borne by the applicant.
17. After considering such further evidence:
 - (a) if the Panel finds, that the applicant merits the status of Award Signatory, then it will prepare a recommendation to that effect, addressed to the Board, and after approval by the full Panel, submit it to the Board; or
 - (b) if the Panel finds that the applicant does not merit status of Award

Signatory, then it will indicate, in a report addressed to the Board, what specific revisions would be necessary in order to qualify for that status. This explanation will be in enough detail so that it may assist the applicant in achieving the status of Award Signatory at a later date.

Annual reviews:

18. Following the initial review for Award Signatory status, progress and performance of Award Signatories will be monitored annually. Should the monitoring process identify that provision of the CERA Award is proceeding satisfactorily, the annual reviews would be expected to focus principally on changes to the program, would rely on existing documentation and would not be intrusive or place particularly onerous obligations on the Award Signatory.
19. Each Award Signatory will provide, at least annually, sufficient information to the external reviewers appointed by the Panel to enable the Panel to monitor compliance with the standards of education as set out in application or previous in-depth review, as the case may be. The required information will normally be set in advance by the Panel, but may be specific to each Award signatory; the Panel also has the right to call for additional information, if it deems it necessary. Unless duplicating the work of the Award Signatory, the monitoring information will include, but may not be limited to:
 - (a) examination papers set;
 - (b) pass rates;
 - (c) copies of examiners reports;
 - (d) evidence from the quality assurance processes of the Award Signatories.
20. The annual review process will involve the use of two independent reviewers who will review information provided by the Award Signatory and submit a report to the Panel. Reviewers will be nominated by Award Signatories and assigned to particular Award Signatories by the Panel. Reviewers will have educational experience and receive initial training.
21. Where the annual monitoring process identifies an issue suggesting that an Award Signatory is not delivering the CERA Award to the required standard, as specified in their original validated proposal, the Panel will request a more detailed report from the reviewers on the Award Signatory's provision of the CERA Award or quality assurance in respect of CERA Award provision (as the case may be).
22. The Panel may make recommendations following the receipt of this more detailed report from the reviewers. Where weaknesses in provision are discovered by the annual review process, the Award Signatory will be required to put right these deficiencies in a timely manner or face further action by the Panel.
23. These recommendations will be subject to the same process as the initial validation process for Award Signatory applicants, including an appeal by the Award Signatory to the Panel or the Board.

Annual Monitoring process:

24. Each Award Signatory will be required to supply at least 2 external reviewers into a pool to review compliance with proposed arrangements for Treaty Designation for the first 10 years. To accommodate the financial constraints that smaller organisations might face, Award Signatories with 3 or fewer votes will only be required to supply one external reviewer (but may supply two). It is essential that all Award Signatories contribute at least one representative to the pool.
25. All external reviewers should be recruited with care and will receive a thorough initial training. External reviewers will participate in semi-annual coordination meetings. These meetings will be conducted via conference call wherever possible in an effort to reduce expenses.
26. Each external reviewer will be appointed only if he or she agrees to perform this role for a 3 year renewable term on a voluntary unpaid basis. External reviewers may perform this role for up to two consecutive terms.
27. Each Award Signatory will facilitate an annual review process conducted by 2 external reviewers from other Award Signatories. External reviewers will be appointed by the Review Panel from the pool of available trained reviewers. In the appointment of reviewers, consideration will be given to language background as well as experience with the mode of education provision used.
28. The external reviewers will conduct an annual review of an Award Signatory's provision of education and assessment in respect of the CERA syllabus in the situation where the Award Signatory is directly involved in education provision. Where the Award Signatory outsources the provision of education and assessment to a third party such as a university, the external reviewers will review the quality assurance processes the Award Signatory uses to assess the educational quality of the third party provider. In these cases the external reviewers will request and must be provided with details of the most recent quality assurance review conducted by the Award Signatory. If the third party provider is itself an Award Signatory, no additional review will be needed.
29. The review process will not be unnecessarily intrusive and will be carried out remotely as far as possible.
30. The external reviewers will report back to the Panel on the effectiveness of each local Award Signatory's provision of education or quality assurance in relation to the provision of education and assessment for the CERA.
31. Where a detailed follow-up is required, the report will focus on the criteria for objective assessment, which will be agreed by the Panel from time to time. It is anticipated that the criteria will include a reasonably detailed examination of learning objectives, syllabus content, and methods of assessment, effectiveness of delivery and the requirements for obtaining the CERA credential.
32. The report will highlight any areas of weakness which the Award Signatory will need to address within the next year or within the next 3-year review cycle, depending of the significance of the area of weakness.
33. Each Association will have the right to comment on any factual inaccuracies in

- the reviewers' report before the report is submitted to the Review Panel.
34. The report will produce one of 3 recommendations:
- (a) process is running satisfactorily and meets the criteria;
 - (b) there are serious problems which the Panel should investigate urgently; or
 - (c) there are a few specific issues in designated areas which need the Panel's attention.
35. Once an annual report on an Award Signatory is accepted by the Panel, that Award Signatory should respond to address any concerns contained within the report within the period specified in it (in accordance with paragraph 32 above). Should the Review Panel decide that the Award Signatory has not satisfactorily addressed the concerns raised in the external reviewers' report; the Review Panel may recommend that the Board request an additional review. The Review panel may arrange that such additional review is carried out either by the same or by different external reviewers.
36. If the concerns outlined in the external reviewers' report are not addressed to the satisfaction of the Panel by the end of the period specified in it (in accordance with paragraph 32 above), the Panel will recommend that the Board revoke the association's award status in accordance with the provisions in Part J.
37. Award Signatories have the right of appeal against:
- (a) the external reviewer assessment (appeal to the Panel);
 - (b) the Panel expulsion recommendation (appeal to the Treaty Board).

END OF TERMS OF REFERENCE

APPENDIX A : Specific Information Required to Support Award Status Application – Actuarial Associations and Third-party Education Providers and Examiners

Actuarial Associations

- ▶ History of provision of tuition and assessment
- ▶ Current system of quality assurance
- ▶ Oversight and review arrangements
- ▶ Size of system and volumes processed
- ▶ Capacity to provide internationally provision (where relevant)
- ▶ Proposed arrangements for the CERA designation
- ▶ Proposals for ongoing monitoring of external education providers and examiners

Education Providers and/or Examiners

- ▶ Experience of offering undergraduate and/or postgraduate courses in actuarial science and/or risk management
- ▶ Research publications of staff members teaching on the programs in relevant areas
- ▶ Number of qualified actuaries or other risk management professionals on the staff; participation of practitioners in education
- ▶ Number of actuarial or risk management students (graduate/ post-graduate) educated in the university in the past 3 years
- ▶ Existing links with actuarial firms and/or professional body (e.g. consultancy or joint research undertaken)
- ▶ Commitment to the program
- ▶ Confirmation of contractual terms guaranteeing readiness to submit to due diligence investigations in regard to the Treaty

END OF APPENDIX A

APPENDIX B

Syllabus Coverage

1. It is acknowledged that some local variation in the syllabus coverage may be appropriate due to differences in risk management practices. In an effort to ensure that an appropriate level of consistency is maintained among the syllabi used by Award Signatories each Award Signatory will be required to demonstrate that the learning objectives and associated syllabus covers at least 90% of the learning objectives overall, and at least 75% of the learning objectives in each section to the depth specified in the agreed ERM Learning Objectives: Schedule A - Learning Objectives.
2. Award Signatories that do not meet 100% of the learning objectives will be required, at appropriate times, to provide to the Panel information supporting their decision to deviate from the syllabus at Schedule A. Any learning objectives not covered must be substituted with other learning objectives deemed more appropriate to local ERM practice.
3. The Panel will be guided by the following general principle in relation to syllabus coverage: Regardless of the precise depth of syllabus coverage or substitution of material as described above, all CERA designees must be at least fully conversant with all the topics and terminology within the ERM Syllabus to a minimum acceptable depth.

Assessment of Candidates

4. Assessment of candidates should be at least 70% by unseen examination and other forms of assessment need to be demonstrably fair.

END OF APPENDIX B