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November 20, 2015

David N. Ingram Chair Enterprise and Financial Risk Committee International Actuarial Association 99 Metcalfe Street, Suite 1203 Ottawa, Ontario K1P 6L7 Canada

Re: Review of ERM White Paper

Dear Dave,

On behalf of the American Academy of Actuaries' ERM/ORSA Committee, I would like to provide feedback on the paper "Actuarial aspects of ERM for Insurance Companies" prepared by the Enterprise and Financial Risk Committee of the International Actuarial Association.

The goal of our review of the paper was to identify any significant issues or concerns regarding the content. We did not perform a detailed review of the paper. A detailed review might have resulted in additional comments or suggestions on improved language.

We have the following general suggestions for improvement to the paper prior to its release:

1. The paper appears to have a bias toward life insurer practices, in particular in the commentary on market/credit risks and discussion of stochastic modeling, both of which are relatively less significant for certain types of insurers, e.g., U.S. health insurers. We suggest that the paper better reflect a full range of insurer practices, including, for example, covering a greater variety of operational risk areas and consider to a greater extent more simplified assessment methods for stress testing and risk capital. As an illustration, for U.S. health insurers, market risk and credit risk are typically less important than operational risk areas not addressed in the paper, such as, regulatory change and provider contracting, and stress testing of capital is more common than development of an economic capital model. Another example is the relatively minor reference to catastrophe models, which are a critical component of P&C risk analysis.

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¹ The American Academy of Actuaries is an 18,500+ member professional association whose mission is to serve the public and the U.S. actuarial profession. The Academy assists public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.

- 2. In some cases, better or best practices are described in a manner that could give the reader the impression that they are minimum or required practices. Since ERM is an evolving area, and practices will vary greatly depending on the nature, scale, and complexity of insurers, we suggest that the language in the white paper be reviewed to make it clear that certain practices may not be commonly seen across the industry. Examples include section 3.2.1, from which it could be inferred that all companies would have a formal and robust risk appetite, risk tolerances, and "granular" risk limits, section 3.3 and 3.4 which contains implication that all companies consider emerging risks, and section 3.5 which can be interpreted to mean that all insurers have relatively sophisticated risk models for quantification of risks.
- 3. Our understanding of the paper's intent is to cover ERM practices in general. With that goal, the paper appears to give undue weight to modeling relative to the use of the models for risk management goals. We would suggest more focus on the topics of risk metrics for purposes of decision making, such as allocation of capital and return on risk adjusted capital (RAROC). This is particularly important to better articulate actuaries' strategic skills in ERM, versus actuaries simply serving in a "calculation engine" type of role.
- 4. Section 3.5.2.1 can give the reader the (false) impression that the various models described (simple factor, stress tests, up through full internal model) are purely stepwise improvements, and that in all situations that the ultimate objective would be to have an internal capital model. Good ERM should involve a range of quantitative methods applied in different situations, and in some situations factors and stress tests might be preferred to an internal capital model.
- 5. The commentary regarding determination of market values on page 34 implies that market values are readily determined, which is rarely the case for insurance liabilities. We recommend that additional language be added to help the reader understand that market prices are typically not available, and that discounted cash flow models (whether stochastic or deterministic) can only provide an estimate of a market price.
- 6. Describing replicating portfolios as a "simplified" risk measurement technique (page 44) is misleading. It can be a useful technique, but is not simple.

We hope you find these comments helpful in finalizing the paper.

Sincerely,

Patricia E. Matson, MAAA, FSA Chairperson, ERM/ORSA Committee Risk Management and Financial Reporting Council American Academy of Actuaries