

February 24, 2017

By e-mail

Mr. Christian Levac,  
Director of Communications and Membership  
International Actuarial Association  
[Christian.Levac@actuaries.org](mailto:Christian.Levac@actuaries.org)

Dear Mr. Levac,

On behalf of the Canadian Institute of Actuaries (CIA), we are writing to comment on the Exposure Draft, Educational Monograph, Risk Adjustments for Financial Reporting of Insurance Contracts under International Financial Reporting Standards No. X, issued by the International Actuarial Association (IAA) on November 7, 2016 (“exposure draft”). The CIA has been active in transitioning Canadian actuarial standards of practice in the direction of International Accounting Standards Board (IASB) developments, including significant changes to standards for valuation of insurance contracts. The CIA appreciates both the efforts of the IAA to provide practical educational materials on the determination of risk adjustments under IFRS X, and the opportunity to provide our comments on the exposure draft, which we hope are useful in your final deliberations.

The CIA would like to offer some suggestions regarding the exposure draft. As requested, we are offering both general comments as well as specific comments in response to the questions in the cover letter to the exposure draft.

**General Comments:**

**1. Readability:**

The CIA recognizes that the purpose of the exposure draft is to act as a handbook for practitioners to follow in applying the concepts of IFRS X as they pertain to the determination of the risk adjustment. This includes both technical practitioners responsible for performing the calculations as well as management responsible for setting the appropriate parameters and communicating the results. The exposure draft therefore must cater to diverse groups of users with differing needs, both technical and qualitative.

While the exposure draft covers both technical and qualitative concepts, we think the balance could be improved in certain sections, keeping in mind throughout who the intended audience is. Chapters 3 and 4 include a highly technical discussion of probability distributions and related concepts, but not enough qualitative discussion to improve the readability for non-technical readers who may nonetheless need to understand the concepts. The technical content is likely too basic for technical users and too advanced for non-technical users, and is therefore of limited use to most readers. One suggestion is to include some of the more technical formulae as an appendix, especially those in chapters 3 and 4.

We also noted a few areas that are factually incorrect or misleading. Two that we have checked are the following:

- LIMRA is not an actuarial organization, as stated in section 8.3.4; and
- In section 6.5.1 (currently labelled 6.4.1), there are other types of proportional reinsurance (e.g., yearly renewable term (YRT) reinsurance) where the terms do not require a proportionate share of the original premium.

There are several areas of repetition which could be removed in the final version of this document, especially in chapters 1 and 2. Appendix 1 of this letter includes a few additional examples.

## **2. Emphasis on Practical Considerations:**

The exposure draft includes robust discussions of theoretical quantitative techniques to determine the risk adjustment, but also acknowledges that the application of these techniques may be limited by practical considerations such as lack of data to calibrate models, non-quantifiable considerations, and the like. The exposure draft should include more discussion of qualitative techniques and the application of judgment. At a practical level, such judgment-based techniques will almost always be required in some form (especially in life insurance applications), and therefore warrant additional attention.

One suggestion is to consider moving some of the material presented in later chapters into chapter 5. For example, the material presented in section 8.4.1 is helpful but could be provided earlier in the exposure draft.

## **3. Sharpened Focus on Risk Adjustments in the Context of IFRS X**

The exposure draft is very clear in explaining that the risk adjustment in IFRS X is based on the estimate of uncertainty and the entity's compensation requirements for bearing the uncertainty. The CIA agrees with this interpretation, and thinks that the exposure draft would be better served if the examples given and discussion provided were limited to risk adjustments in the context of IFRS X considerations only.

For example, the exposure draft includes fairly detailed summaries of risk adjustment techniques used in other contexts, such as Solvency II or the Swiss Solvency Test (section 1.3.2). In our view, this discussion is not relevant to the purpose of the exposure draft and should be shortened or moved to an appendix so as not to dilute the main message of the exposure draft.

As another example, there is an extensive discussion on "additional comments regarding use of best estimate under IFRS X" (following section 2.4). These considerations are not relevant in the determination of the risk adjustment, and therefore should not be included in this exposure draft.

Section 2.1.3 includes a fairly detailed summary of the building block approach in IFRS X, including a discussion on building block 1 (future cash flows), building block 2 (time value of money) and building block 3 (risk adjustments). The descriptions of the first two building blocks could be shortened or dropped, as there are other educational documents that cover these topics.

Chapter 6 of the exposure draft provides an extensive discussion of reinsurance, including a detailed summary of different types of reinsurance arrangements, clauses in reinsurance contracts, and financial reporting considerations. In our view, this level of detail is not necessary to determining the risk adjustment. While this is a helpful review of reinsurance in general, it may be more appropriate to include this as part of a separate International Actuarial Note (IAN) on reinsurance valuation, allowing the exposure draft to remain focused on the considerations specific to the risk adjustments.

The exposure draft clearly explains that the risk adjustment in IFRS X is limited to insurance risks and does not include provision for financial risks. It also notes that in some cases, the fulfilment cash flows will vary with market parameters such as interest rates or equities. The exposure draft provides a list of typical stochastic interest rate and equity models currently in use for this purpose (section 4.5) and a discussion on how to aggregate the insurance and market risks in this situation. The exposure draft could be clearer that these discussions are relevant only for the purpose of determining the risk adjustment on market-sensitive products, and that market risks (which are financial risks) are excluded from the risk adjustment. Additional commentary should be provided on how to aggregate only a subset of the risks, given that market and other risks are not included in the IFRS X risk adjustment.

#### **4. Interpretation of IFRS Requirements:**

The CIA notes that the exposure draft is based on the authors' understanding of current IFRS X requirements. As the final IFRS X requirements have not yet been released, it is possible that some of the material in the exposure draft may need to be revised.

The CIA also notes that some of the concepts are written based on specific interpretations of the IFRS X standard. In areas where the IFRS X standard is subject to interpretation, the exposure draft could make clear that other interpretations are possible.

For example, the interest rate models referenced in chapter 4 are all examples of real-world models. In our view, the interest rate models described in the exposure draft would not necessarily be suitable for IFRS X purposes, as our interpretation of IFRS X is that fulfilment cash flows that depend on the performance of underlying assets should be consistent with the observable market prices for those assets.

#### **Specific Comments:**

##### **Question 1: Technical content:**

***The monograph contains detail of the techniques and approaches used in quantifying risk adjustments, based on current practices around the world and the authors' understanding of future IFRS requirements.***

##### ***(a) Is the breadth and depth of detail appropriate to the monograph?***

The technical material presented in the exposure draft is likely not technical enough for actuaries responsible for performing such calculations, and yet too technical for other actuaries who are responsible for approving, understanding, and reporting the results.

For example, chapter 3 summarizes the cumulative density functions and their moments of several probability functions. For non-technical readers, this would not be useful information, and for technical users who are involved in this space already, this would be basic information, and therefore also not useful. It could, however, be helpful as a reference point in the appendices.

We note that the exposure draft includes references to other more technical documents for further detail, which the CIA agrees is useful. Some consideration could also be given to reducing the level of technical content in chapters 3 and 4 and instead including more such references.

The exposure draft includes some discussion of risk aggregation across portfolios. It would be useful for the exposure draft to provide expanded discussion on this, in particular on methods of allocation to portfolios or subgroups. A case study would also be useful in this regard.

Please note that we did not review the technical accuracy of the material (e.g., statistical formulae), and therefore have no comments in that regard.

#### **Question 2: Qualitative Approaches:**

***Although qualitative approaches are covered by the monograph in Chapter 5, the coverage is relatively light. The monograph is mainly focused on reflecting “established practice” and it is thought that qualitative approaches to risk adjustment are often used.***

***(a) Is this position appropriate for the monograph (noting that the IAA is planning a separate IAN on Risk Adjustment):***

We agree with the observation that qualitative approaches to risk adjustment are often used. With that in mind, we recommend that additional material on qualitative approaches be provided. It would be appropriate to coordinate the level of detail provided in the exposure draft with that being planned for the IAN on risk adjustment.

The exposure draft identifies many of the considerations relevant for a qualitative approach. However, little advice is provided on how the practitioner should apply these concepts in practice. We would look to either the IAN or the exposure draft to provide more specific educational material on this, including commentary on best practices and some additional case studies.

#### **Question 3: Risk Mitigation:**

***The chapter on risk mitigation (Chapter 6) is focused on the special financial reporting requirements for outgoing (ceded) reinsurance transactions. Other risk mitigation approaches are not discussed in detail. Such other risk mitigation features generally directly affect the fulfillment cash flows arising from insurance contracts.***

***(a) Should the monograph include greater details regarding how other risk mitigation techniques are taken into account (e.g., participation features, premium adjustments) or is the current scope of this chapter sufficient for educational purposes?***

We are of the view that additional educational material on the impact of different risk mitigation techniques on the risk adjustment would be appropriate. The exposure draft could

differentiate between those risk mitigation techniques that are transaction based (e.g., reinsurance and hedging) and those that are product design based (e.g., participating features or premium adjustability), as the considerations for developing the risk adjustment are different for these two broad classes of risk mitigants. Transaction-based risk mitigation would not, in our view, impact the determination of the risk adjustment, whereas product-design-based risk mitigation would directly impact the risk adjustment. The discussion in chapter 6 is focused on reinsurance and is sufficient for educational purposes for that type of risk mitigation. However, more educational material could be provided on considerations that arise with adjustable products.

Additional material on assessing non-performance risk on the reinsurer (page 93 of the exposure draft) would also be helpful.

**Question 4: Balance of Different Approaches:**

***The monograph relies heavily on actions taken to support the cost of capital approach for the discussions of Validation (Chapter 7) and Remeasurement of Risk (Chapter 8).***

***(a) Is this reasonable?***

We agree that the selection of one approach (cost of capital) is sufficient for the purpose of illustrating the types of consideration for validation and remeasurement. Similar principles would apply for other approaches.

More generally, we note that the exposure draft is heavily biased towards the cost of capital approach to determining the risk adjustment. We would appreciate additional emphasis on other approaches as well, including some additional case studies that describe other approaches.

**Question 5: Communication and Disclosure:**

***The monograph uses a relatively narrow definition of “communication and disclosure” (see Chapter 9).***

***(a) Given that the focus of the monograph is on the technical concepts under IFRS, is this definition appropriate for the educational objectives of the monograph?***

We agree with the approach taken in the exposure draft.

**Question 6: Case Studies:**

***The Exposure Draft includes eight case studies that are designed to expand on and illustrate the concepts presented.***

***(a) Do the case studies provide sufficient detail to for the reader to replicate the processes illustrated?***

We found that several but not all of the case studies had sufficient detail. The property and casualty (P&C) examples in particular required more information to replicate.

***(b) Do the case studies cover a sufficient breadth of examples?***

We recognize that there is a practical limit to the number of case studies that can be included in the exposure draft. Having said that, we would be interested in the following list of additional case studies:

- Risk adjustments where significant qualitative considerations exist (e.g., no data or probability distribution);
- How to allocate risk adjustments determined at the company level down to a portfolio or subgroup level;
- Risk adjustments for universal life contracts;
- Risk adjustments for lapse risk (policyholder behavior risk); and
- Risk adjustments where reinsurance exists.

***(c) Are there additional techniques that should be illustrated in any of the case studies?***

The case studies are broadly sufficient to illustrate the principles involved. However, the case studies begin with the premise that the relevant parameters have already been set. It would be useful for the case studies to provide additional illustrations of how those parameters were set. For example, many case studies are based on a 6 percent cost of capital assumption. It would be useful to understand how the 6 percent cost of capital assumption might be derived. We understand that this is not the main point of these case studies, and therefore, an additional case study that focuses on this aspect would be useful. We would also like to see more discussion in the body of the exposure draft about how to quantify the cost of capital or other measures of the compensation the entity requires for taking risk.

We would also be interested in seeing the application of a technique where the risk adjustment is determined by adjusting the best estimate assumptions with an explicit margin for risk.

***(d) A basic participating life example is provided, but the authors would like to have comments about its usefulness. The authors are interested in suggestions on how the variable fee approach (rather than a mirroring approach) could be applied in this example. Under typical participating features for life insurance, experience for a pool of policyholders will impact the policyholders' cash flows. To the extent that the fulfilment cash flow risks are insignificant under participating contracts, should such an example simply illustrate that the risk adjustments under participating contracts could be immaterial?***

We think a case study on risk adjustments for participating contracts would be helpful. In particular, an illustration or discussion of how the risk adjustment is affected by the entity's discretion over the cash flows to be paid to policyholders and any constraints on that discretion would be useful.

Finally, we think it may be helpful to release subsequent exposure drafts on a chapter-by-chapter basis, similar to the approach taken with the IAA's Risk Book.

The above comments were prepared by the CIA's International Insurance Accounting Committee. Please contact Les Rehbeli (Chair) at [les.rehbeli@oliverwyman.com](mailto:les.rehbeli@oliverwyman.com) if you wish to discuss any of our comments.

We would like to thank you again for your consideration of our comments on this exposure draft and hope that you find them useful.

Sincerely,

A handwritten signature in cursive script, appearing to read "Dave Dickson".

Dave Dickson, FCIA  
CIA President

## **Appendix 1**

### **Example 1:**

The following is an example of repetition that could be eliminated:

Section 2.1.3 speaks to the intent and characteristics of the risk adjustment. This point is expressed in the following paragraph:

“However, the risk adjustment for the combined cash flows would always be a positive liability in such situations. Moreover, the intent of the risk adjustment under IFRS X *Insurance Contracts* is only to adjust the valuation of insurance liabilities where the risk adjustment is a positive liability. Consequently, the risk and uncertainty in the cash inflows and cash outflows would be considered together for the risk adjustment, but the value of the risk adjustment should always be a positive liability. Otherwise, the risk adjustment would be zero”

The same point is made in each of the next five paragraphs of this section, with some variation on the words.

Section 2.2.2 (Diversification) also repeats the basic premise of the risk adjustment:

“In determining the level of compensation for uncertainty for the specific entity, the insurer would also consider the amount that makes the insurer indifferent between fulfilling the liabilities from aggregated insurance contracts with a range of possible outcomes versus fulfilling the liabilities from aggregated insurance contracts with fixed cash flows with the same expected value of the cash flows, adjusted for the time value of money (i.e., present value).”

Section 2.2.3 (Risk Adjustment and its composition) again repeats this premise:

“The risk adjustment is the difference between the risk-adjusted value and the expected value. For most financial reporting applications, the risk-adjusted value of a liability would be greater than the expected value of the liability. In other words, risk adjustments will increase the liability valuation when applied to the expected value of insurance contract liabilities”

## **Example 2:**

Another example of repetition that could be eliminated:

Section 2.2.3 includes a summary of the considerations for determining the compensation required by the entity to assume risk, as noted in the following:

- *“Compensation for bearing risk—Here bearing risk refers to the risk and uncertainty concerning actual outcomes of ultimate cash flows related to insurance contracts versus the unbiased estimate of expected value, considering those outcomes that are relevant to the unbiased estimate of expected value.*
  - Compensation—an amount reflecting a risk adjustment that when added to the unbiased estimate of expected value would be such that the insurer is indifferent between:
    - (a) Retaining the uncertain cash flows associated with the fulfilment of its insurance contracts; and
    - (b) Having fixed and certain cash flows, i.e., fixed amounts with certainty of timing of the cash flow amounts or a single fixed amount.
  - Insurer’s view of the risk and uncertainty associated with the future cash flows needed to fulfil all in-force policies and all unpaid obligations on expired policies:
    - (a) Sources of risk and uncertainty and drivers of variability of actual versus expected cash flows; how accurate are the estimates of the future cash flows and of the unbiased expected values; what basis is there for the estimates—the credibility and relevance of the available data, the degree of confidence in the specific risk models, the unbiased expected value, and the assumptions needed for the estimates and the models;
    - (b) Assessment of the impact of risk and uncertainty on the future cash flows (e.g., evaluation of different scenarios);
    - (c) The considerations that will determine the minimum profit (compensation for bearing risk) at which the company would be indifferent to retaining, assuming, or transferring the portfolio of uncertain fulfilment cash flows; and
    - (d) The selection of risk-pricing models (or functions) that assign the compensation for risk that is based on an assessment of the risk characteristics and risk metrics.”

Each of these points has been made in prior sections of the exposure draft. We would recommend that these references be consolidated and discussed in one section.