AASB TRG – Reinsurance working group
Update August 2019

Calculating and accounting for the risk adjustment for insurance contracts issued and for reinsurance held. Specifically – How should the Gross risk adjustment take into account the availability of reinsurance?

1. Background

- The risk adjustment is defined as "the compensation an entity requires for bearing the uncertainty about the amount and timing of the cash flows that arise from non-financial risk".

- Whilst there were differing views at the May 2018 TRG about whether this compensation referenced the issuing entity of the reporting entity, the staff analysis supported the view that:

  o the objective of the risk adjustment for non-financial risk is to reflect the entity's perception of the economic burden of its non-financial risks;

  o it represents the compensation that the entity would require if it was to charge the policyholder an explicit separate amount for bearing non-financial risk; and

  o while an entity may choose or be required, for reasons unconnected with bearing that non-financial risk, to charge a premium which does not result in a full recovery of the risk-adjusted cash flows, this is not a factor in assessing the compensation required.

- In light of the above, it seems reasonable to assume that in determining the compensation required in respect of risk that the entity did not expect to retain, it would reflect the availability and cost of reinsurance, as this would affect the economic cost of non-financial risk passed on via reinsurance. This is consistent to the point the IASB has indicated to a number of preparers. Also refer to Appendix B from the April 2019 IASB TRG papers where this IASB view is confirmed.

- Guidance in both the IAN and Australian Actuaries Information Note take the view that it is appropriate to allow for the availability of reinsurance when calculating the risk adjustment for gross insurance contracts issued. However, they are not clear as to how to apply and account for this in practice.

2. Possible approaches to determining the risk adjustment for contracts issued

Approach 1

Assumptions

- It is sound practice in general insurance pricing to take a view on the expected cost of reinsurance e.g. when setting premiums, budgeting and planning.

- Where the reinsurance transfers only risk to the reinsurer, then the expected cost of that reinsurance:

  o reflects the economic cost of the risk being transferred; and

  o is an appropriate measure for the entity of the compensation required for the risk transferred to the reinsurer.

- Where the reinsurance includes financing as well as risk transfer, it would be inappropriate to take the net cost of reinsurance as an appropriate measure for the risk adjustment relating to reinsurance.

Example 1- proportional reinsurance

Gross portfolio (of householder insurance contracts issued) with:

  o a mean of CU10.0m; and

  o a pure gross reserve of CU13.5m required to reach a probability of adequacy (PoA) of 85% without considering any reinsurance available.

Net portfolio after allowing for expected proportional reinsurance (10% quota share) has a net distribution with:

- o a mean of CU9.0m; and
- o a reserve of CU12.2m at 85% PoA
- o i.e. a net risk adjustment of CU3.2m.

Example 1
10% proportional RI
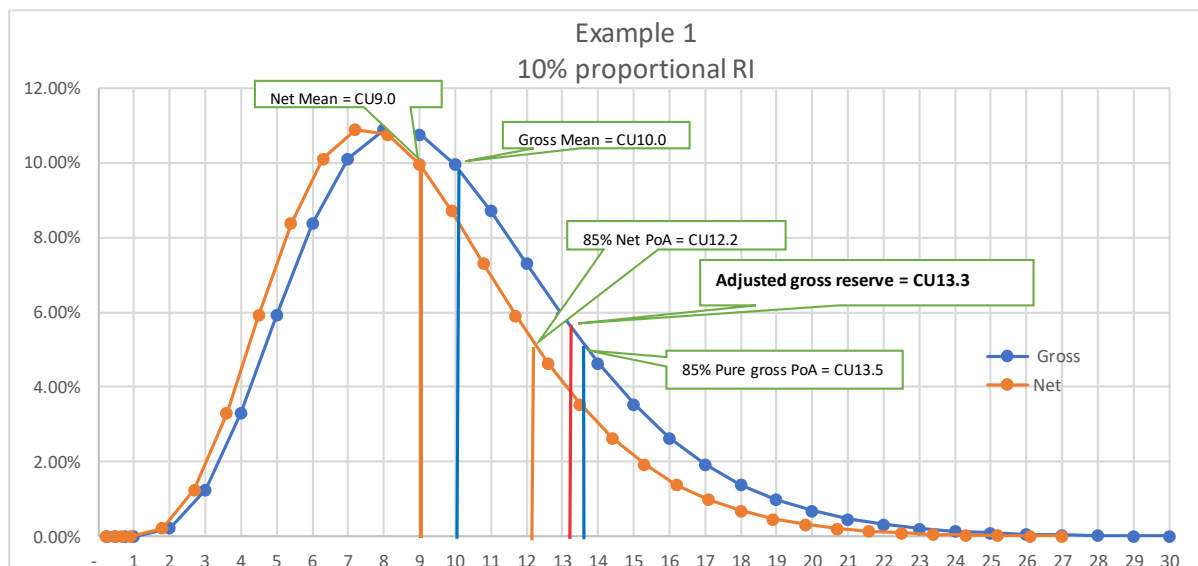
Reinsurance covers non-financial risk only with:

- o Expected reinsurance recoveries of CU1.0m i.e. gross mean of CU10.0m less net mean of CU9.0m per above. Note that default risk is ignored for simplicity.
- o Reinsurance premium of say CU1.1m.
- o **Reinsurance Risk adjustment is CU0.1m** as the compensation for risk transferred is CU0.1m (= 1.1m – 1.0m). In other words, considering its risk profile and risk appetite, the reinsurer includes in its pricing of premiums to policyholders an amount of CU0.1m, which represents the costs of purchasing the reinsurance less the expected benefits of reinsurance – this is the cost the insurers are required to pay for the component of risk offloaded to reinsurers.

Therefore, the **Gross Risk Adjustment** considering the availability of reinsurance is CU3.3m, comprising:

a) Net Risk Adjustment of CU3.2m which reflects the consideration required by the entity for the risk it intends to retain; plus

b) reinsurance risk adjustment of CU0.1m; implies

c) an adjusted gross reserve to reflect the insurer's requirements for bearing the uncertainty (based on a net PoA objective of 85%) of CU13.3m

The difference between the pure gross reserve of CU13.5m and the adjusted gross reserve of CU13.3m recognises the impact of available reinsurance in measuring the risk adjustment on the contracts issued.

Example 2 – non-proportional reinsurance

Gross portfolio (of householder insurance contracts issued) with:

- o a mean of CU10.0m; and
- o a pure gross reserve of CU13.5m required to reach a probability of adequacy (PoA) of 85% without considering any reinsurance available.

Net portfolio after allowing for expected non-proportional reinsurance protection of CU3.0m in excess of CU10.0m has a net distribution with:

- o a mean of CU9.1m; and

- o   a reserve of CU10.5m at 85% PoA
- o   i.e. a net risk adjustment of CU1.4m.

Example 2
XOL R/I (CU3.0 xs CU10.0)
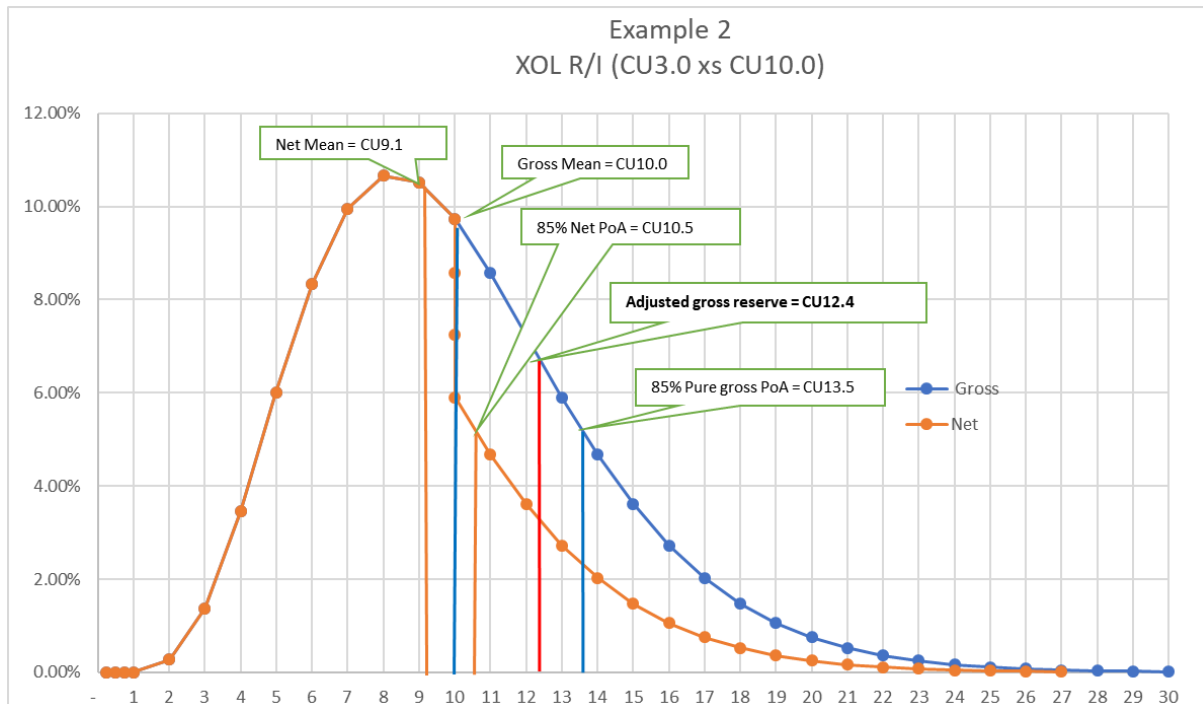
Reinsurance covers non-financial risk only with:

- o   Expected reinsurance recoveries of CU0.9m i.e. gross mean of CU10.0m less net mean of CU9.1m per above. Note that default risk is ignored for simplicity.
- o   Reinsurance premium of say CU1.8m.
- o   **Reinsurance Risk adjustment is CU0.9m** as the compensation for risk transferred is CU0.9m (= CU1.8m – CU0.9m). In other words, considering its risk profile and appetite, the reinsurer includes in pricing of premiums to policyholders an amount of CU0.9m which represents the costs of purchasing the reinsurance less the expected benefits of reinsurance – this is the costs the insurers are required to pay for the component of risk offloaded to reinsurers.

Therefore, the **Gross Risk Adjustment** considering the availability of reinsurance is CU2.3m, comprising:

- a)   Net Risk Adjustment of CU1.4m which reflects the consideration required by the entity for the risk it intends to retain; plus
- b)   reinsurance risk adjustment CU0.9m; implies
- c)   an adjusted gross reserve to reflect the insurer's requirements for bearing the uncertainty (based on a net PoA objective of 85%) of CU12.4m

The difference between the pure gross reserve of CU13.5m and the adjusted gross reserve of CU12.4m recognises the impact of available reinsurance in measuring the risk adjustment on the contracts issued.

Approach 2

This approach leverages current practice applied under AASB 1023 and APRA. Unlike approach 1, it does not require explicit reference to reinsurance prices as set by the reinsurer.

Steps

- •   The total compensation for variability the entity requires is set on a net basis (i.e. the net risk adjustment) and is a margin set to hold a Probability of Adequacy (PoA) of having sufficient funds to payout to the policyholder given the reinsurance in place.
- •   The gross risk adjustment is comprised of the margin required to achieve the PoA on the gross distribution.

- After equalising for contract boundaries, the reinsurance risk adjustment is the balancing item between the gross and net risk adjustments.

- The gross, net and reinsurance risk adjustment can be re-expressed as percentages of the mean, which then allows for the risk adjustment to be scaled with the contract boundaries in place.

Example

- Using the information from 'Example 1 – Approach 1' and assuming the entity requires a PoA of 85% on both a net and gross basis then:

  o The **net risk adjustment** is unchanged from the first example (i.e. CU3.2m)

  o The **gross risk adjustment** is equal to the margin between the 85% PoA and the mean, or CU13.5m – CU10m = CU3.5m

  o The **reinsurance risk adjustment** is therefore CU3.5m – CU3.2m = CU0.3m (when allowing for equal contract boundaries)

  o These will be re-expressed as percentages of the mean, which then allows for the risk adjustment to be scaled with the contract boundaries in place. Therefore, the risk adjustments are:

    ▪ Gross: 35% of the mean

    ▪ Net: 35% of the mean

    ▪ Rein: 35% of the mean

- Applying this logic to XoL 'Example 1 – Approach 2':

  o The **net risk adjustment** is unchanged from the first example (i.e. CU1.4m)

  o The **gross risk adjustment** is equal to the margin between the 85% PoA and the mean, or CU13.5m – CU10m = CU3.5m

  o The **reinsurance risk adjustment** is therefore CU3.5m – CU1.4m = CU2.1m (when allowing for equal contract boundaries)

  o These will be re-expressed as percentages of the mean, which then allows for the risk adjustment to be scaled with the contract boundaries in place. Therefore, the risk adjustments are:

    ▪ Gross: 35% of the mean

    ▪ Net: 15% of the mean

    ▪ Rein: 233% of the mean

Approach 3 (IASB example from Appendix A of paper AP02, April 2019 TRG)

Our interpretation of the IASB example approach is:

Steps

- Calculate the gross risk adjustment based on the entity's compensation for risk on the net cash flows, plus the expected net cost of reinsurance.

- The gross risk adjustment is then split between the net risk adjustment and the reinsurance risk adjustment based on the proportion of the risks held by the entity and the reinsurer.

Example

- Using the information from 'Example 1 – Approach 1' and assuming the entity sets the net risk adjustment as the margin required to achieve a PoA of 85%

  o The **gross risk adjustment** is equal to:

    ▪ Net risk adjustment (CU3.2m) + the net cost of reinsurance (CU0.1m) = CU3.3m

  o The gross risk adjustment is then allocated between the net and reinsurance risk adjustments on the basis of the share of risk transferred.

- ▪ Reinsurance results in the mean reducing from CU10m to CU9m
- ▪ Therefore, 10% of the risk has been transferred
- ▪ Therefore, the **net risk adjustment** is CU3.0m and the **reinsurance risk adjustment** is CU0.3m
  - o Arguably the last step could be performed on the two 85% PoA distributions rather than the mean to estimate the risk transfer. In the example in Approach 1 this does not result in a materially different split of the gross risk adjustment.

- This logic can also be applied to the XoL 'Example 1 – Approach 2':
  - o The **gross risk adjustment** is equal to:
    - ▪ Net risk adjustment (CU1.4) + the net cost of reinsurance (CU0.9m) = CU2.4m
  - o The gross risk adjustment is then allocated between the net and reinsurance risk adjustments on the basis of the share of risk transferred.
    - ▪ The gross reserve allowing for reinsurance = CU10.0m + CU2.4m = CU12.4m
    - ▪ Applying the CU3.0m in excess of CU10.0m reinsurance to this gross reserve results in a CU2.4m reinsurance reserve.
    - ▪ The **reinsurance risk adjustment** is the reinsurance reserve less the expected reinsurance recoveries i.e. CU2.4m – CU0.9m = CU1.4m
    - ▪ The **net risk adjustment** is the balance of the gross and reinsurance risk adjustments i.e. CU2.4m – CU1.4m = CU0.9m

3. Other considerations

- Reinsurance is taken into account when setting the risk adjustment for insurance contracts issued **IF** the entity takes reinsurance into account when considering "the compensation an entity requires for bearing the uncertainty about the amount and timing of the cash flows that arise from non-financial risk". This is a question of fact.

- Ultimately it is the net risk adjustment (i.e. the risk adjustment for insurance contracts issued less the risk adjustment for reinsurance contracts held) that is critical to the entity's overall results and statement of financial position and this would be based on the net distribution to reflect the net of reinsurance compensation that the entity requires for bearing the risk.

- Approaches presented in this paper are considered acceptable. In theory, these approaches should result in similar outcomes throughout the insurance cycles as market prices fluctuate. While the entity's view of risk should be the long-term view, there would be some short-term volatility and complexity in reporting. There could be other alternative approaches and there is no intention to mandate a single approach.

- A practical expedient for those entities that don't have their own view of risk or a gross distribution would be to use approach 1, whereby you add back the expected cost of reinsurance to the net of reinsurance risk adjustment. There is no requirement to use your own pricing for the costs of offloading risk to a reinsurer, so it seems reasonable to assume you could just use the expected reinsurance costs. Note that approach 1 could be simplified further to remove the need for a gross distribution if you based the expected reinsurance recoveries on past experience or budgets / forecasts.

- Where the reinsurance contract boundary extends past the gross contract boundary, some additional reinsurance risk adjustment might be required although arguably you know the variability in the reinsurance must be offset by gross cash flow movements, otherwise there would be no reinsurance occurring. On the reverse, where the gross contract boundary extends past the reinsurance contract boundary, the argument would be that reinsurance will be purchased, so the net risk adjustment still applies.

- Theoretically you could end up with the reinsurance risk adjustment being zero or even negative. If the benefit of reinsurance (i.e. the gross central estimate less the net central estimate) equals the cost of reinsurance the reinsurance risk adjustment will be zero. If the benefit of reinsurance (i.e. the gross central estimate less the net central estimate) exceeds the cost of reinsurance the reinsurance risk adjustment will be negative. This latter scenario is more likely when the reinsurance contract boundary extends beyond the boundary of the underlying contracts or when the gross distribution is influenced by extreme events.

- The determination of whether contracts are onerous would be carried out on the fulfillment cashflows for insurance contracts – this includes the impact of reinsurance on the risk adjustment if that is the basis on which the entity determines the compensation it requires.

- The confidence level approach for determining the risk adjustment is currently widely used under AASB 1023. Under IFRS 17 the confidence level approach could still be used but may be more complex to apply as it does not directly relate to the compensation required for bearing the risk (e.g. if the entity risk appetite is a 75% confidence level you need to correlate this to the compensation the entity requires for bearing the uncertainty). The cost of capital or other methods may be a simpler alternative approach. In any event you still need a way of measuring the confidence level based on the distribution of outcomes and the entity's risk appetite in order to satisfy disclosure requirements of IFRS 17.

- IFRS 17 requires confidence level disclosures but does not specify if this is required for contracts issued separate from reinsurance contracts held. The logical approach to this disclosure, based on the analysis above, would be include a disclosure of the net confidence level as this will be more comparable across entities. However, where there is a significant difference in contract boundary between insurance contracts issued and reinsurance held a "grossed up" disclosure may be necessary.

Appendix A - Relevant extracts from IFRS 17

IFRS 17.37   An entity shall adjust the estimate of the present value of the future cash flows to reflect the compensation that the entity requires for bearing the uncertainty about the amount and timing of the cash flows that arises from non-financial risk.

Reinsurance

IFRS 17.64   Instead of applying paragraph 37, an entity shall determine the risk adjustment for non-financial risk so that it represents the amount of risk being transferred by the holder of the group of reinsurance contracts to the issuer of those contracts.

risk adjustment for non-financial risk	The compensation an entity requires for bearing the uncertainty about the amount and timing of the cash flows that arises from non-financial risk as the entity fulfils insurance contracts.

Risk adjustment for non-financial risk (paragraph 37)

IFRS 17.B87   The risk adjustment for non-financial risk for insurance contracts measures the compensation that the entity would require to make the entity indifferent between:
  (a) fulfilling a liability that has a range of possible outcomes arising from non-financial risk; and
  (b) fulfilling a liability that will generate fixed cash flows with the same expected present value as the insurance contracts.
  For example, the risk adjustment for non-financial risk would measure the compensation the entity would require to make it indifferent between fulfilling a liability that—because of non-financial risk—has a 50 per cent probability of being CU90 and a 50 per cent probability of being CU110, and fulfilling a liability that is fixed of CU100. As a result, the risk adjustment for non-financial risk conveys information to users of financial statements about the amount charged by the entity for the uncertainty arising from non-financial risk about the amount and timing of cash flows.

IFRS17.B88   Because the risk adjustment for non-financial risk reflects the compensation the entity would require for bearing the non-financial risk arising from the uncertain amount and timing of the cash flows, the risk adjustment for non-financial risk also reflects:
  (a) the degree of diversification benefit the entity includes when determining the compensation it requires for bearing that risk; and
  (b) both favourable and unfavourable outcomes, in a way that reflects the entity's degree of risk aversion.

IFRS 17.B89   The purpose of the risk adjustment for non-financial risk is to measure the effect of uncertainty in the cash flows that arise from insurance contracts, other than uncertainty arising from financial risk. Consequently, the risk adjustment for non-financial risk shall reflect all non-financial risks associated with the insurance contracts. It shall not reflect the risks that do not arise from the insurance contracts, such as general operational risk.

IFRS 17.B90   The risk adjustment for non-financial risk shall be included in the measurement in an explicit way. The risk adjustment for non-financial risk is conceptually separate from the estimates of future cash flows and the discount rates that adjust those cash flows. The entity shall not double-count the risk adjustment for non-financial risk by, for example, also including the risk adjustment for non-financial risk implicitly when determining the estimates of future cash flows or the discount rates. The discount rates that are disclosed to comply with paragraph 120 shall not include any implicit adjustments for non-financial risk.

Appendix B – Comments from the IASB staff – April 2019 TRG papers

Log #	Topic	Question	Response
S118	Consideration of reinsurance in the risk adjustment for non-financial risk	The submission questions whether the effect of reinsurance should be considered in calculating the risk adjustment for non-financial risk for contracts that have been reinsured. The submission further provides an example illustrating two alternative approaches in determining such effect.	Paragraph B88 of IFRS 17 requires that the risk adjustment for non-financial risk reflects the compensation the entity would require for bearing the non-financial risk arising from the uncertain amount and timing of the cash flows. The risk adjustment for non-financial risk reflects the degree of diversification benefit the entity includes when determining the compensation it requires for bearing that risk. Therefore, if an entity considers reinsurance when determining the compensation it requires for bearing non-financial risk related to underlying insurance contracts, the effect of the reinsurance (both cost and benefit) would be reflected in the risk adjustment for non-financial risk of the underlying insurance contracts. IFRS 17 does not specify the estimation techniques to be used to determine the risk adjustment for non-financial risk. Paragraph 64 of IFRS 17 requires that the risk adjustment for non-financial risk for reinsurance contracts held represents the amount of risk being transferred by the holder of the group of reinsurance contracts to the issuer of those contracts. Therefore, the risk adjustment for non-financial risk of the reinsurance contract held could not be nil, unless: (a) the entity considers reinsurance when determining the compensation it requires for bearing non-financial risk related to underlying insurance contracts; and (b) the cost of acquiring the reinsurance is equal or less than the expected recoveries. See example 1 in Appendix A to this paper.

Appendix A—Examples

Example 1— Risk adjustment for non-financial risk when an entity expects to buy reinsurance (related to S118)

A1. Suppose an entity would determine the premium it charges for insurance contracts as illustrated in the following table, ignoring the possibility of reinsurance and before considering any profit:

Present value of claims	100
Risk adjustment for non-financial risk	30
Premium	**130**

A2. However, the entity knows that reinsurance is available to it, and the entity expects to cover 50% of claims using reinsurance. It expects the cost of purchasing this reinsurance to be 60. When the entity includes this possibility in its assessment of the premium it will charge for the insurance contracts (still before thinking about any profit), it determines the following amounts:

	Expected to be covered by reinsurance	Not expected to be covered by reinsurance	Total insurance contracts issued
Present value of claims	50	50	100
Risk adjustment for non-financial risk	10	15	25
Premium	**60**	**65**	**125**

A3. The reinsurance contract held transfers 50% of the risk from the entity so is accounted for as follows:

Present value of claim recoveries	50
Risk adjustment for non-financial risk (=25/2)	12.5
Contractual service margin (net gain)	(2.5)
Reinsurance premium	**60**