

# IFRS 17 Accounting Policy Paper: Risk adjustment for non-financial risk

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|-----------------------|--------------------------------------|
| Approvers/ Reviewers: | Approved by: FA Accounting Committee |
| Subject:              | Risk Adjustment                      |

## Disclaimer:

This accounting policy paper, which is the responsibility of the Facility Association's (FA) management, is prepared solely for the FA as administrator of certain insurance pools, namely the Facility Association Residual Market (FARM) and each of the Risk Sharing Pools (RSPs). It is intended solely for the use of the FA to document management's accounting policy determinations under IFRS 17 as part of management's internal financial reporting and governance processes as applicable to the FARM and each of the RSPs.

This accounting policy paper is being made available through the FA website to member insurance companies for general information purposes only and does not constitute advice from the Facility Association. Member insurance companies are responsible for their own assessment of IFRS 17 as applicable to their financial reporting. We disclaim any responsibility to any member insurance company who may rely on this document.



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#### **Purpose**

The objective of this paper is to document Facility Association's assessment of the requirements of IFRS 17 relating to the risk adjustment for non-financial risk (RA) in terms of measurement, presentation and disclosure.

#### Entities:

Facility Association (FA) administers three types of mechanisms on behalf of its membership. This paper covers only the two mechanisms in the scope of IFRS 17, namely:

- Facility Association Residual Market ("FARM")
- Risk Sharing Pools ("RSPs")\*
- \* Outside the scope of this paper are requirements relating to the direct business issued by the individual members prior to transferring the business to the RSPs. Only business assumed via the RSPs will be addressed in this memo.

#### **Topics Covered:**

The topics covered in this paper are as follows:

- 1. How will the risk adjustment be calculated?
- 2. Does the hybrid approach suggested in question 1 meet the five criteria outlined by the Standard?
- 3. How does FA assess the level of compensation that it required for bearing uncertainty about the amount and timing of cash flows?
- 4. How will FA calibrate its risk adjustment to a confidence level?
- 5. How would FA record the impact of changes in risk adjustments?

#### Dependencies and Relationships:

The technical positions developed in this paper affect (i.e., have downstream dependency on) or are affected by the conclusions of the following papers:

- 1. Initial recognition and contract boundary
- 2. Initial and subsequent measurement



#### **Executive Summary**

IFRS 17 introduces a new concept of risk adjustment which reflects the compensation an entity requires for bearing the uncertainty about the amount and timing of cash flows that arises from non-financial risk (as per IFRS 17 Paragraph 37). FA reached the following conclusions regarding the requirements of IFRS 17 relating to risk adjustments and the application of those requirements to contracts issued by servicing carriers through the FARM and to contracts ceded by individual member companies through the RSPs to the collective members:

- 1) How will the risk adjustment be calculated?
  - a) FARM: A hybrid approach will be used, whereby a calibration model will be used to periodically calibrate risk adjustment factors applicable to insurance liabilities that can be used in monthly reporting.
     FA proposes to use a simplified cost of capital methodology where the required inputs are consistent with management targets.
  - b) RSP: A hybrid approach will be used, whereby a calibration model will be used to periodically calibrate risk adjustment factors applicable to insurance liabilities that can be used in monthly reporting. FA proposes to use a simplified cost of capital methodology where the required inputs are consistent with management targets.
- 2) Does the hybrid approach suggested in question 1 meet the five criteria outlined by the Standard?
  - a) FARM: the hybrid approach meets all five criteria
  - b) RSP: the hybrid approach meets all five criteria
- 3) How does FA assess the level of compensation that it requires for bearing uncertainty about the amount and timing of cash flows?
  - a) FARM: the hybrid approach appropriately addressed the aspects of level of compensation, level of risk being borne, type of risk being borne, difference between range of cash flows and fixed cash flows, and diversification.
  - b) RSP: the hybrid approach appropriately addressed the aspects of level of compensation, level of risk being borne, type of risk being borne, difference between range of cash flows and fixed cash flows, and diversification.
- 4) How will FA calibrate its risk adjustment to a confidence level?
  - a) FARM: Confidence level of the total risk adjustment will be assessed by comparing it against a risk distribution derived from the MCT calculation.
  - b) RSP: Confidence level of the total risk adjustment will be assessed by comparing it against a risk distribution derived from the MCT calculation.
- 5) How would FA record the impact of changes in risk adjustments?
  - a) FARM: the impact of RA will not be disaggregated and will be recorded as part of insurance service result.
  - b) RSP: the impact of RA will not be disaggregated and will be recorded as part of insurance service result.



# Question 1: How will the risk adjustment be calculated?

## Technical References and Guidance

#### IFRS 17 Appendix A

**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**.

#### **IFRS 17 Standard**

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.

# IFRS 17 Appendix B

- B86 The risk adjustment for non-financial risk relates to risk arising from insurance contracts other than financial risk. Financial risk is included in the estimates of the future cash flows or the discount rate used to adjust the cash flows. The risks covered by the risk adjustment for non-financial risk are insurance risk and other non-financial risks such as lapse risk and expense risk (see paragraph B14).
- 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.
- 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.
- B92 An entity shall apply judgement when determining an appropriate estimation technique for the risk adjustment for non-financial risk. When applying that judgement, an entity shall also consider whether the technique provides concise and informative disclosure so that users of financial statements can benchmark the entity's performance against the performance of other entities. Paragraph 119 requires an entity that uses a technique other than the confidence level technique for determining the risk adjustment for nonfinancial risk to disclose the technique used and the confidence level corresponding to the results of that technique.



#### **Technical Analysis**

IFRS 17 does not specify the estimate techniques used to determine the risk adjustment for non-financial risk. The CIA Committee on Property and Casualty Insurance Financial Reporting (PCFRC) has published a paper outlining different methodologies that can be used to calculate the risk adjustment. These broadly fall into the three categories below:

#### 1) Quantile techniques

There are generally two quantile techniques: value-at-risk technique (VaR) and conditional tail expectation (CTE) technique.

Using the value-at-risk technique, the risk adjustment is calculated as the amount that must be added to the expected value of the insurance liabilities, such that the probability that the actual outcome will be less than the liability (including the risk adjustment) is equal to a targeted probability (i.e. confidence level). The risk adjustment is the difference between the probability-weighted expected value and the corresponding result at the selected percentile of the probability distribution.

Using the CTE technique, the risk adjustment is calculated as a conditional mean of the cash flows for all points of the probability distribution in excess of a chosen confidence level. The risk adjustment is the distance between the probability-weighted expected value (an estimate of the mean over the whole distribution) and the probability-weighted expected value of cash flows only for those points of the distribution beyond a selected percentile of the probability distribution.

#### 2) Cost-of-capital technique

This technique calculates risk adjustments based on the concept that the entity will determine its risk preference based on the selection of a capital amount appropriate for the risks that are relevant to IFRS 17 measurement objectives. The cost-of-capital technique is typically described as selecting future capital amounts based on the determination of a probability distribution for future cash flows related to the insurance liability.

The difference between the amount from the probability distribution associated with the selected confidence level and the probably-weighted expected value represents the amount of capital. That amount of capital is then multiplied by the selected cost of capital rate at future points in time until the fulfillment cash flows are projected to be completed. The risk adjustment is computed as the present value of the future cost of the capital associated with FA's relevant fulfillment cash flows (see formula below).

$$Risk\ Adjustment = \sum\nolimits_{t=0}^{n} \frac{Capital_{t} \times CoC\ Rate}{(1 + discount\ rate_{t})^{t}}$$

The cost-of-capital technique calculates the risk adjustments on the basis of measuring the compensation in terms of the return to insurance entity as the cost associated with the risk of uncertain, unfavourable outcomes.

<sup>&</sup>lt;sup>1</sup> Committee on Property and Casualty Insurance Financial Reporting. (May 2020). IFRS 17 Risk Adjustment for Non-Financial Risk for Property and Casualty Insurance Contracts. <a href="https://www.cia-ica.ca/docs/default-source/2020/220063e.pdf">https://www.cia-ica.ca/docs/default-source/2020/220063e.pdf</a>



# 3) Margin Approach

In the margin method, the actuary would select margins that reflect the compensation the entity requires for uncertainty related to non-financial risk. The "compensation the entity requires" would be quantified through the margin-setting process, which is not necessarily based on a specified confidence level

It should be noted there is no requirement to use a single model or approach for all business or all risks. A hybrid approach— where margins are periodically calibrated using a quantile or cost of capital method – are also possible. Such approaches may be more practical for implementation in monthly financial reporting.

The following table summarizes the pros and cons of the three methods.

|   | Pros   | Cons   |
|---|--|--|
| Quantile techniques: based on value-at-risk or conditional tail expectation, calculate risk adjustment on the entity level (e.g. based on EC or LICAT) and allocate down (e.g. using MfAD)  | <ul> <li>Easy to communicate</li> <li>Consistent with disclosure requirement about confidence level</li> </ul> | <ul> <li>Very complex to model the full distribution</li> <li>May lack stability, while risk profile and desired compensation may have remained unchanged.</li> <li>Still need to determine the targeted range of percentiles.</li> <li>Requires additional analyses to ensure that it measures compensation for non-financial risk being borne.</li> <li>Requires additional approach to allocate RA at lower level of granularity</li> </ul> |
| Cost of capital: calculates risk adjustments based on the concept that FA will determine its risk preference based on the selection of a capital amount appropriate for the non-financial risks or apply the approximated run-off pattern instead of full projection. | Consistent with the requirement that RA represents the compensation for non-financial risk being borne.        | <ul> <li>Need to build a new model and models may range from simple and crude approximation to complex model.</li> <li>Require crucial assumptions such as capital level to support risk appetite and compensation rate.</li> <li>Need additional approach to determine the confidence level for disclosure approach.</li> <li>Requires additional approach to allocate RA at lower level of granularity</li> </ul>                            |



|  | Pros   | Cons  |
|--|--|---|
| Margin technique:<br>simple percentage applied to<br>discounted future cash flows<br>related to claim liabilities. | <ul> <li>Current MfAD calculation can be leveraged</li> <li>Less computational needs</li> <li>Stable in course of time.</li> </ul> | <ul> <li>Requires additional analyses to ensure that it measures compensation for non-financial risk being borne.</li> <li>Need additional approach to determine the confidence level for disclosure approach.</li> </ul> |

#### **FARM**

# 1) Quantile techniques

FARM's low renewal retention throughout history tends to breach the assumption underlying sophisticated quantile models (e.g., bootstrap or Mack) that any historical data point is an adequate measure of the claim uncertainty across all cohorts. Additionally, FARM's data have relatively low credibility attached the low claim volume by portfolio and reflect the inherent changes in business mix. Thus, the results of the sophisticated quantile models may be volatile in course of time even if the risk profile remained relatively stable.

The quantile technique is necessary for determining the confidence level in order to comply with IFRS 17 disclosure requirements. In line with the CIA educational note of risk adjustment, FARM can apply a simplified quantile approach to determine the confidence level. The simplified quantile approach would assume the lognormal distribution calibrated to OSFI capital factors as found in the Minimum Capital Test (MCT) guidelines.

# 2) Cost-of-capital (CoC) technique

FARM is an unincorporated non-profit association and is not required to maintain its own capital. It is not an insurer and does not need to use a model to determine a desired internal capital level. The FARM allocates its transactions and balances to members, and those members are responsible for maintaining appropriate capital to support those transactions and balances in accordance with applicable insurance regulatory requirements.

Solely to support the allocation of transactions and balances to members, FARM proposes to develop and maintain a simple cost-of-capital level. Using input from the members, the proposed assumptions required for the CoC technique are as follows:

- Capital is based on either the premium to surplus ratio assumption of 2:1, as used for pricing, or alternatively on an agreed target MCT ratio;
- Capital required varies by line of business, where policy liabilities of longer duration and greater variance in future cash flow amounts, such as third party injury claims, carry a higher capital requirement compared to liabilities with short durations and less variance, such as automobile physical damage claims.
- The CoC rate is based on the target rate on equity assumption used in FARM pricing of 12% after tax if applicable (FARM is not subject to tax), with adjustments such as tax rate and return on investment from the industry assets supporting the capital;
- The unwind pattern of the capital is based on the payment pattern associated to the claim liability, with some adjustments specific to capital attrition; and
- Diversification is recognized using correlation matrices. Given that members have a different percentage of share across portfolios (where a given portfolio is combination of a province and a product group),



diversification across portfolios may not be appropriate for each member. Thus, FARM proposes to only recognize the correlation across coverages within a given portfolio, but not across portfolios.

Such an approach could be performed once a year to calibrate an appropriate compensation for the non-financial risks being performed.

This proposed methodology is recommended for the following reasons:

- There is a lack of data about capital supporting the liabilities, using an industry-based approach such as the MCT to derive the capital requirements is a reasonable approximation.
- This approach will produce a more stable risk margin compared to a quantile method based on a stochastic model using FARM's own data.
- It is transparent and reproducible for members to understand and modify if needed.

#### 3) Margin Approach

Given the frequency and volume of reporting, FARM proposes to convert the results from CoC technique into margin factors that would be used for interim reporting periods. This approach is good approximation as the results of the CoC technique are expected to be stable within a financial year. It has the advantage to be simple and operationally efficient.

### 4) Conclusion

A hybrid approach is adopted, whereby a calibration model based on a simplified CoC technique is used to periodically calibrate risk adjustment. The results of the CoC technique are converted to risk adjustment factors (i.e., margin approach) applicable to insurance liabilities that are used in monthly reporting to members. A quantile approach is used to determine the corresponding confidence level for disclosure purpose.

#### A hybrid approach will be used for FARM

#### RSP:

The proposed methodology is recommended for the same reasons listed under FARM.

#### A hybrid approach will be used for RSP



| Mechanism | Technical Position  |
|-----------|---|
| FARM      | A hybrid approach is adopted, whereby a calibration model based on a simplified CoC technique   |
| RSP       | is used to periodically calibrate risk adjustment. The results of the CoC technique are converted to risk adjustment factors (i.e., margin approach) applicable to insurance liabilities that are used in monthly reporting to members. A quantile approach is used to determine the corresponding confidence level for disclosure purpose. |



# Question 2: Does the hybrid approach suggested in question 1 meet the five criteria outlined by the Standard?

# Technical References and Guidance

#### IFRS 17 Appendix B

- B91 IFRS 17 does not specify the estimation technique(s) used to determine the risk adjustment for non-financial risk. However, to reflect the compensation the entity would require for bearing the non-financial risk, the risk adjustment for non-financial risk shall have the following characteristics:
  - (a) risks with low frequency and high severity will result in higher risk adjustments for non-financial risk than risks with high frequency and low severity;
  - (b) for similar risks, contracts with a longer duration will result in higher risk adjustments for non-financial risk than contracts with a shorter duration;
  - (c) risks with a wider probability distribution will result in higher risk adjustments for non-financial risk than risks with a narrower distribution;
  - (d) the less that is known about the current estimate and its trend, the higher will be the risk adjustment for non-financial risk; and
  - (e) to the extent that emerging experience reduces uncertainty about the amount and timing of cash flows, risk adjustments for non-financial risk will decrease and vice versa.

#### **Technical Analysis**

#### **FARM**

FARM proposes a hybrid approach. Given that CoC technique is adopted for the calibration of the RA, the technical analysis only is performed on that component of the hybrid approach.

Test 1: risks with low frequency and high severity will result in higher risk adjustments for non-financial risk than risks with high frequency and low severity

FARM proposes to adopt a simplified CoC technique. This approach relies on capital which reflects the uncertainty of future cash flows related to claims liabilities. Low frequency and high severity risks attract larger capital. Consequently, higher RA is attributed to low frequency and high severity risks. Thus, the adopted approach passes test 1.

Test 2: for similar risks, contracts with a longer duration will result in higher risk adjustments for non-financial risk than contracts with a shorter duration

FARM proposes to adopt a simplified CoC technique. This approach relies on an unwind pattern that influences the magnitude of capital at each point in time. The longer the duration, the longer the unwind pattern, the longer is the period requiring compensation for non-financial risk being borne. Consequently, higher RA is attributed to risks with a longer duration. Thus, the adopted approach passes test 2.

<u>Test 3: risks with a wider probability distribution will result in higher risk adjustments for non-financial risk than</u> risks with a narrower distribution



FARM proposes to adopt a simplified CoC technique. This approach relies on capital which reflects the uncertainty of future cash flows related to insurance contract liabilities. Capital required varies by line of business; the policy liabilities with wider distributions of cash flows attract more capital. Consequently, higher RA is attributed to risks with wider distribution of cash flows. Thus, the adopted approach passes test 3.

Test 4 and 5: the less that is known about the current estimate and its trend, the higher will be the risk adjustment for non-financial risk; and to the extent that emerging experience reduces uncertainty about the amount and timing of cash flows, risk adjustments for non-financial risk will decrease and vice versa.

FARM proposes to adopt a simplified CoC technique. This approach relies on capital and its unwind pattern. The less mature claim cohorts are more uncertain with respect to estimate and trends, and these cohorts attract a higher capital. The unwind pattern recognizes the emerging experience. As time passes, the emerging experience informs about the diminishing uncertainty of the remaining cash flows, and capital is reduced. Consequently, higher RA is attributed to cohort of risks that is less mature, and the RA for that given cohort decreases as experience emerges. Thus, the adopted approach passes tests 4 and 5.

#### Criteria met

#### **RSP**

The proposed approach meets the five criteria for the same reasons listed under FARM.

#### Criteria met

| Mechanism | Technical Position  |
|-----------|---|
| FARM      | Based on the analysis performed above, the hybrid approach meets the criteria |
| RSP       | Based on the analysis performed above, the hybrid approach meets the criteria |



# Question 3: How does FA assess the level of compensation that it requires for bearing uncertainty about the amount and timing of cash flows?

#### Technical References and Guidance

# IFRS 17 Standard

Paragraph 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.

# IFRS 17 Appendix B

B86 The risk adjustment for non-financial risk relates to risk arising from insurance contracts other than financial risk. Financial risk is included in the estimates of the future cash flows or the discount rate used to adjust the cash flows. The risks covered by the risk adjustment for non-financial risk are insurance risk and other non-financial risks such as lapse risk and expense risk (see paragraph B14).

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 at 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 nonfinancial risk about the amount and timing of cash flows.

- 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 nonfinancial 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.



#### Technical Analysis:

#### **FARM:**

FARM proposes a hybrid approach. Given that CoC technique is adopted for the calibration of the RA, the technical analysis only is performed on that component of the hybrid approach.

## Aspect 1 – How is the level of compensation determined?

FARM proposes to adopt a simplified CoC technique. This approach relies on the CoC rate, which is based on the target rate on equity assumption used in FARM pricing of 12% after tax if applicable (FARM is not subject to tax), with adjustments such as tax rate and return on investment from the industry asset supporting the capital. Consequently, the RA as determined under the adopted approach would appropriately reflect the level of compensation.

# Aspect 2 – What is the level of risk being borne?

FARM proposes to adopt a simplified CoC technique. This approach relies on the Capital, which is based on either the premium to surplus ratio assumption of 2:1, as used for pricing, or alternatively on an agreed target MCT ratio. Consequently, the RA as determined under the adopted approach would appropriately reflect the level of risk being borne by the members.

#### Aspect 3 – Which risks are included in the non-financial risks being borne?

#### IFRS17 defines Financial risks as:

The risk of a possible future change in one or more of a specified interest rate, financial instrument price, commodity price, currency exchange rate, index of prices or rates, credit rating or credit index or other variable, provided in the case of a non-financial variable that the variable is not specific to a party to the contract.

In contrast, the risks covered by the risk adjustment for non-financial risks are insurance risks and other non-financial risks such as lapse risk and expense risk (the latter two are relevant for life insurance products).

#### IFRS17 specifies that:

Insurance risk is the risk the entity accepts from the policyholder. This means the entity must accept, from the policyholder, a risk to which the policyholder was already exposed. Any new risk created by the contract for the entity or the policyholder is not insurance risk.

It accounts for the uncertainty stemming from frequency and the severity of claims, claim emergence and settlement.

The risk adjustment would NOT include the uncertainty due to operational risk, asset liability mismatch risk and price or credit risk on assets supporting the liabilities.

FARM proposes to adopt a simplified CoC technique. This approach relies on the Capital (being amount due/from



members), which expressly reflects the insurance risks. Consequently, the RA as determined under the adopted approach would appropriately reflect the non-financial risks being borne.

Aspect 4 – How is the difference between range of cash flows and fixed cash flows being taken into account?

FARM proposes to adopt a simplified CoC technique. This approach relies on the Capital, which reflects the difference between range of cash flows and fixed cash flows. Consequently, the RA as determined under the adopted approach would appropriately reflect the difference between range of cash flows and fixed cash flows.

# Aspect 5 – What level of diversification is being recognized?

FARM proposes to adopt a simplified CoC technique. The RA diversification is recognized using correlation matrices. Given that members have a different percentage of share across portfolios (where a given portfolio is combination of a province and a product group), diversification across portfolios may not be appropriate for each member. Thus, FARM proposes to recognize the correlation across coverages within a given portfolio. Consequently, the RA as determined under the adopted approach would appropriately reflect the proposed level of diversification.

# Five aspects are appropriately addressed

# RSP:

The proposed approach appropriately addressed the five aspects for the same reasons listed under FARM.

#### Five aspects are appropriately addressed

| Mechanism | Technical Position  |
|-----------|---|
| FARM      | Based on the analysis performed above, the hybrid approach appropriately addressed the aspects of level of compensation, level of risk being borne, type of risk being borne, difference between range of cash flows and fixed cash flows, and diversification. |
| RSP       | Based on the analysis performed above, the hybrid approach appropriately addressed the aspects of level of compensation, level of risk being borne, type of risk being borne, difference between range of cash flows and fixed cash flows, and diversification. |



#### Question 4: How will FA calibrate its risk adjustment to a confidence level?

#### Technical References and Guidance

#### **IFRS 17 Standard**

An entity shall disclose the confidence level used to determine the risk adjustment for non-financial risk. If the entity uses a technique other than the confidence level technique for determining the risk adjustment for non-financial risk, it shall disclose the technique used and the confidence level corresponding to the results of that technique.

#### **Technical Analysis:**

As required by the Standards, since an explicit confidence level approach will not be used the confidence level will have to be disclosed. This means that an understanding of the underlying distribution for each product is required. There are two methods that may be used:

- (a) a stochastic approach that will give an estimate of the full distribution; or
- (b) approximate methods that allow the confidence level to be approximated.

Under a full stochastic approach, the entity could elect to set the level of the margin at a certain level for each risk and then periodically run a full stochastic simulation to estimate the equivalent confidence level.

Alternatively, there could be an election to estimate the confidence level by approximate methods.

#### **FARM:**

In line with the CIA educational note on risk adjustment, FARM can apply a simplified quantile approach to determine the confidence level. The simplified quantile approach would assume the log-normal distribution calibrated to OSFI capital factors as found in the Minimum Capital Test (MCT) guidelines. The approach is transparent and reproducible for members. It is easy to understand and modify if needed.

FARM will use the insurance risk factors in the Minimum Capital Test (MCT) to derive the standard deviation of the distribution for specific portfolios



# RSP:

A method similar to FARM will be used for RSPs to ensure transparency and stability in the risk margins.

RSPs will use the insurance risk factors in the Minimum Capital Test (MCT) to derive the standard deviation of the distribution for specific portfolios

| Mechanism | Technical Position   |
|-----------|--|
| FARM      | The confidence level of the total risk adjustment will be assessed by comparing it against a risk distribution derived from the MCT calculation. |
| RSP       | The confidence level of the total risk adjustment will be assessed by comparing it against a risk distribution derived from the MCT calculation. |



#### Question 5: How would FA record the impact of changes in risk adjustments?

#### Technical References and Guidance

#### IFRS 17 Standard

- 41 An entity shall recognise income and expenses for the following changes in the carrying amount of the liability for remaining coverage:
  - (a) insurance revenue—for the reduction in the liability for remaining coverage because of insurance contract services provided in the period, measured applying paragraphs B120–B124;
  - (b) insurance service expenses—for losses on groups of onerous contracts, and reversals of such losses (see paragraphs 47–52); and
  - (c) insurance finance income or expenses—for the effect of the time value of money and the effect of financial risk as specified in paragraph 87.
- 42 An entity shall recognise income and expenses for the following changes in the carrying amount of the liability for incurred claims:
  - (a) insurance service expenses—for the increase in the liability because of claims and expenses incurred in the period, excluding any investment components;
  - (b) insurance service expenses—for any subsequent changes in fulfilment cash flows relating to incurred claims and incurred expenses; and
  - (c) insurance finance income or expenses—for the effect of the time value of money and the effect of financial risk as specified in paragraph 87.
- 80 Applying paragraphs 41 and 42, an entity shall disaggregate the amounts recognised in the statement(s) of profit or loss and other comprehensive income (hereafter referred to as the statement(s) of financial performance) into:
  - (a) an insurance service result (paragraphs 83–86), comprising insurance revenue and insurance service expenses; and
  - (b) insurance finance income or expenses (paragraphs 87–92).
- 81 An entity is not required to disaggregate the change in the risk adjustment for non-financial risk between the insurance service result and insurance finance income or expenses. If an entity does not make such a disaggregation, it shall include the entire change in the risk adjustment for non-financial risk as part of the insurance service result.

#### Technical analysis:

Conceptually, the fulfilment cash flows are calculated as follows:

Fulfilment cash flows = Discounted estimates of future cash flows + Risk adjustment

The risk adjustment calculations may implicitly or explicitly account for the effect of, and changes in, the time value of money arising from the passage of time.



According to IFRS17, there are two options to record the changes in RA.

Option 1 – Combine the effect of all changes from methodology, assumptions and discounting affecting the RA and record the impact under insurance service result

Option 2 – Disaggregate the effect of changes, and record

- in insurance service result, the impact on RA from methodology and assumptions; and
- in insurance finance result, the impact on RA from the changes in discount rates.

Once chosen, the accounting policy will need to be applied consistently at the level of the portfolio of insurance contracts.

#### **FARM:**

FARM proposes a hybrid approach to determine the RA. Given that simplified CoC technique is adopted for the calibration of the RA, the technical analysis only is performed on that component of the hybrid approach.

#### Option 1

The simplified CoC technique results in a single RA for which the recording in insurance service result is well suited. It is simple to operate and administer. Thus, it reduces the risk of error. It is traceable and simple to explain. Thus, it allows the members to reproduce the calculations and modify the results according to their own view of compensation for non-financial risks being borne, if desired.

#### Option 2

The simplified CoC technique does not explicitly segregate the effect of discounting on the Capital In order to achieve such a disaggregation, a separate procedure would need to be developed and maintained. This complexity increases the operational risk. It makes it more difficult for the members to reproduce the calculations and modify the results to reflect their own view of compensation for non-financial risks being borne. Besides the extra complexity related to the disaggregation, it does not add valuable information to the financial reporting.

For the reasons set above, FARM concluded that Option 1 is the most appropriate accounting policy.

No disaggregation – the impact of risk adjustment will all go through the insurance service result

#### RSP:

For the same reasons as listed above for FARM, management has decided to not disaggregate and have the impact of RA go through insurance service result.

No disaggregation – the impact of risk adjustment will all go through the insurance service result