



# IAIS

INTERNATIONAL ASSOCIATION OF  
INSURANCE SUPERVISORS

Public

## ICS Consultation Document – Responses to Comments on Non-Life Risks (Sections 9.2.2.6-7)

9 March 2016



# About this slide deck

---

1. This is the next tranche of resolutions of ICS Consultation Document (ICS CD) responses and comments received from IAIS Members and Stakeholders.
2. Member comments are grouped, noting that:
  - i. Members who provided confidential responses are not explicitly identified, but the total number of responses received is reported; and
  - ii. it is the policy of some Members to not comment on public consultations.
3. Stakeholder comments are presented on a thematic basis.

# Glossary of Member Acronyms

---

AMF	Autorité des Marchés Financiers, Quebec, Canada
BaFin	Federal Financial Supervisory Authority, Germany
BMA	Bermuda Monetary Authority
CIRC	China Insurance Regulatory Commission
EIOPA	European Insurance and Occupational Pensions Authority
MAS	Monetary Authority of Singapore
NAIC	National Association of Insurance Commissioners, United States
OSFI	Office of the Superintendent of Financial Institutions, Canada
Russia	Central Bank of the Russian Federation

## 9.2.2.6 Premium Risk

**Question 86.** Will there be any issues with separating non-life business in the way outlined above? Why or why not?

*"Premium risk covers risks associated with the timing, frequency and severity of future insured events being higher than expected. This risk is applicable to non-life business only, because premium risk for life business is captured within mortality, longevity and lapse risks. Note that to the extent that premium risk for non-life business is already captured by assessment under morbidity/disability risk, it would not be included here to ensure there is no double-counting of risk."*

AMF, EIOPA, MAS and six other Members said there would be no such difficulties.

AMF, BaFin and OSFI said non-life insurers with some life business may not have data for life stresses.

CIRC suggested including morbidity/disability in premium risk.

Stakeholders were equally divided between i) no issues, and ii) morbidity/disability risks cannot be separated from Non-Life business in practice. Two stakeholders said more clarity is needed on treatment of health insurance / 'similar to life/non-life'

**IAIS Response:** The IAIS is considering a re-design of the treatment of health risks (including morbidity/disability) and intends to continue examining this issue in 2016 Field Testing.

## 9.2.2.6 Premium Risk

---

**Question 87.** Will there be any difficulties in separating premium and catastrophe risk? If yes, how else can these two risks be treated? If no, where should the threshold between premium risk and catastrophe events be set? Why is this appropriate?

BMA, EIOPA, MAS and five other Members commented that it would be appropriate/doable.

BaFin and one other Member said there would be problems separating CAT from premium/claims.

EIOPA and five other Members said no fixed threshold should be used, while OSFI said a clear definition of CAT and a materiality threshold needs to be defined.

## 9.2.2.6 Premium Risk

**Question 87.** Will there be any difficulties in separating premium and catastrophe risk? If yes, how else can these two risks be treated? If no, where should the threshold between premium risk and catastrophe events be set? Why is this appropriate?

Stakeholders mostly say it is appropriate to separate premium and CAT risk to prevent double counting. One said it would be difficult to define a threshold. Roughly equal numbers of Stakeholders say the separation is possible vs the separation would be difficult to do. Several specific suggestions included

- Use NAIC RBC formula for CAT Risk
- IAIS should accumulate industry data to develop premium factors net of CAT risk
- Excessive (premium or risk exposure) growth should be included as a risk factor

**IAIS Response:** In developing the standard method for the ICS version 1.0, the IAIS will separately assess premium and catastrophe risks. The calibration of the premium risk factors will avoid double counting to the extent possible.

## 9.2.2.6 Premium Risk

---

**Question 88.** Is it appropriate to use a factor-based approach to calculate premium risk? If not, what other alternative approaches in Section 8 could be used? How would it/they work? If yes, which type of factors should be included in the ICS capital requirement, set factors or shocks to loss ratios? Is it necessary to address idiosyncratic risks?

AMF, BaFin, EIOPA, MAS, OSFI and six other Members support a factor-based approach.

BaFin, MAS, OSFI and two other Members said set factors should be used.

EIOPA and four other Members, said premium risk should be calculated as product of standard deviation (by line of business) x exposure measure.

BaFin and one other Member said idiosyncratic risks should not be addressed.

MAS said changes in trend should be addressed qualitatively under ERM.

## 9.2.2.6 Premium Risk

**Question 88.** Is it appropriate to use a factor-based approach to calculate premium risk? If not, what other alternative approaches in Section 8 could be used? How would it/they work? If yes, which type of factors should be included in the ICS capital requirement, set factors or shocks to loss ratios? Is it necessary to address idiosyncratic risks?

Multiple stakeholders were supportive of a factor-based approach, while a few said internal models should be used. A few stakeholders expressed support for set factors and for shocking loss ratios. One suggested allowing company-specific adjustments to the factors. A small number of stakeholders were particularly concerned about capturing the mitigating effects of XOL reinsurance, and the diversification effects of having a larger block of business. One said idiosyncratic risk should not be covered.

**IAIS Response:** For the development of the standard method for ICS version 1.0, the IAIS will continue to assess a factor-based approach to be applied to the net of outwards reinsurance premium. Other methods (e.g. company-specific adjustments to the factors, internal models) will be considered as part of the move from ICS version 1.0 to ICS version 2.0.

## 9.2.2.6 Premium Risk

**Question 89.** Which exposure amount – premium charged or unearned premium – would be most appropriate to use for most classes of business and why? Which classes of business should not use this as an exposure measure? If possible, provide alternatives including reasons for those alternatives.

EIOPA and four other Members are in favour of using the maximum of expected future and actual past earned premiums over 1 year.

MAS and one other Member said unearned premium should be used.

AMF and OSFI suggested using premium liabilities.

BaFin said earned premium should be used.

CIRC supports using premium charged.

MAS suggested using unexpired risk reserves.

Some stakeholders were supportive of using premium charged. A few supported unearned premium or suggested past earned premiums or expected claims for premiums to be earned. Other suggestions were to use premium planned in the business plan, to use risk-in-force for Mortgage insurance, and to account for embedded profit in the design.

## 9.2.2.6 Premium Risk

---

**Question 89.** Which exposure amount – premium charged or unearned premium – would be most appropriate to use for most classes of business and why? Which classes of business should not use this as an exposure measure? If possible, provide alternatives including reasons for those alternatives.

**IAIS Response:** Comments were received on the suitability of potential volume measures to capture the premium risk to which the IAIG is exposed for the next 12 months. It was noted by several stakeholders that the unearned premium from the existing book of business will lead to an underestimation of risk if it is not adjusted to capture the risk associated with the new business. Using earned premium from the last 12-month period could be a suitable adjustment for stable books of business. The expected earned premium for the next 12-month period could be a suitable adjustment for changing and in particular growing books of business. For the field testing of the standard method, the IAIS is testing the use of the maximum of the last 12-month period and the next 12-month period.

## 9.2.2.6 Premium Risk

---

**Question 90.** How should the risk charge for premium risk capture these additional risks? Why is this appropriate?

*"For some non-life business, there are additional complications such as the impact of guarantees of future coverage or multi-year contracts will need to be taken into account..."*

EIOPA and four other Members commented that the approach outlined is already sufficient.

BaFin suggested the volume measure should be based on lifetime of contract.

## 9.2.2.6 Premium Risk

**Question 90.** How should the risk charge for premium risk capture these additional risks? Why is this appropriate?

*"For some non-life business, there are additional complications such as the impact of guarantees of future coverage or multi-year contracts will need to be taken into account..."*

There was no predominant theme from Stakeholder responses. Some responses were:

- Incorporate the risk in expected premium
- Use of (full) written premium will capture the risk
- Only 12 months of risk should be captured given the 12 month time horizon
- US regulator can cancel policies of P&C insurers in liquidation, so future coverage is not a risk for US P&C insurers
- Include additional explicit allowance for the anticipated closing amount of unearned premium
- Shocks to loss ratio would capture this
- Use sum of unearned premium and written premium as exposure: GIAJ
- Include expected claims from such guarantees in exposure measure and apply risk charge
- Adjust balance sheet to fair market value + charge on UPR
- Use Company/portfolio-specific factors

**IAIS Response:** The IAIS will continue to examine this issue while field testing the approach outlined in the IAIS response to question 89.

## 9.2.2.6 Premium Risk

**Question 91.** What segmentation of business lines would be appropriate for premium risk? What specific issues with respect to reinsurance should be addressed?

MAS, NAIC and one other Member said segmentation should follow the risk type or volatility.

BaFin, EIOPA, and four other Members proposed a segmentation in 12 segments.

Russia proposed a segmentation in 5 segments plus a split for corporate and retail.

OSFI said reinsurance credit risk charge should be applied (this requires gross and net calculation)

There were a wide range of comments from stakeholders. Two common comments were that non-proportional and proportional reinsurance should be distinguished, and that segmentation should use (either directly or in an aggregated form) existing jurisdictional lines of business.

Some specific proposals:

- Long-tail / short-tail / mixed
- Property / Liability / Other
- Property / Accident / Motor / Marine / Liability
- Use S&P capital model approach

## 9.2.2.6 Premium Risk

---

**Question 91.** What segmentation of business lines would be appropriate for premium risk? What specific issues with respect to reinsurance should be addressed?

**IAIS Response:** For the purpose of the field testing of the standard method the reporting of premium risk exposures will be based on existing jurisdictional segments for risks located in that jurisdiction. This is expected to facilitate the reporting for most volunteers. The use of a limited set of factors reflecting the volatility of the different segments will be tested as a mean to reflect an appropriate level of risk sensitivity.

## 9.2.2.6 Premium Risk

---

**Question 92.** Is the proposed grouping by geographical region appropriate for premium risk? If not, what should be the appropriate geographical grouping?

NAIC and one other Member suggested that segmentation based on risks irrespective of geography would be sufficient.

BaFin, EIOPA and four other Members said it needed to be more granular and provided a suggestion.

AMF and Russia also said it needs to be more granular. Russia suggested defining groups based on share of insurance in GDP.

BaFin said it depends on how geographical diversification is calculated.

MAS said that geographical segments should be based on behavior of business lines in different regions and should be validated using field testing data.

OSFI suggested to explore separating UK from Europe, and Canada from US.

## 9.2.2.6 Premium Risk

---

**Question 92.** Is the proposed grouping by geographical region appropriate for premium risk? If not, what should be the appropriate geographical grouping?

A number of stakeholders said it was not appropriate, and a smaller number said it was reasonable.

Of those who said it was not appropriate, reasons cited included not allowing for geographical diversification within a region, too much variation within each group, and problems with products where risks are not tied to a specific jurisdiction (e.g. Marine, Aviation). Some stakeholders suggested differentiating between continents at the minimum. One stakeholder suggested that geographical grouping could be less granular.

**IAIS Response:** The IAIS will continue to assess, through field testing, the appropriate level of granularity to be included in the ICS standard method.

## 9.2.2.6 Premium Risk

**Question 93.** If GAAP with adjustments were used as an alternative valuation approach for the ICS, detail those adjustments, if any that would be required to produce a comparable premium risk charge to those produced using the market-adjusted valuation approach under the premium risk charge described in this section.

BaFin, EIOPA and four other Members said that the methodology for calculation of ICS capital requirements should not be tied to a given valuation methodology and there should be only one ICS standard method.

Stakeholders were divided on whether a GAAP with Adjustments approach should be pursued or would produce comparable outcomes. A couple of stakeholders said no adjustments would be necessary. One stakeholder said comparable outcomes can be obtained by applying stresses. Another said the adjustments would be primarily discounting related. One stakeholder who did not support the GAAP with adjustments approach said that, if it is to be tested at all, the testing should include all risks to allow for a meaningful comparison.

**IAIS Response:** As the GAAP with Adjustments approach is further developed, interactions with and implications for Non-Life Risks will be considered.

## 9.2.2.6 Claims Risk

---

**Question 94.** Will there be any issues with separating non-life business in the way outlined above?

Why or why not?

*Claim reserve/revision risk covers risks associated with expected future payments for claims or events that have already occurred (whether reported to the IAIG or not) and not yet fully settled. This will include all possible claims under policies, including claims that are not yet known about but would be covered under the policy. The risks associated with catastrophe events that have already occurred are included within claim reserve/revision risk. This risk is applicable to non-life business only, because this risk is captured within mortality, longevity and lapse risk for life insurance business. Note that to the extent that this risk is already captured by assessment under morbidity/disability risk, it would not be included here to ensure there is no double-counting of risk.*

EIOPA, MAS and five other Members said there should be no problems.

EIOPA and three other Members said that a stress for lapse risk of non-life business should be added.

BaFin said that separation of CAT premiums/reserves may be problematic but this can be addressed in calibration.

AMF and OSFI both anticipate problems applying life requirements to life-related risks in non-life book.

## 9.2.2.6 Claims Risk

**Question 94.** Will there be any issues with separating non-life business in the way outlined above?

Why or why not?

*Claim reserve/revision risk covers risks associated with expected future payments for claims or events that have already occurred (whether reported to the IAIG or not) and not yet fully settled. This will include all possible claims under policies, including claims that are not yet known about but would be covered under the policy. The risks associated with catastrophe events that have already occurred are included within claim reserve/revision risk. This risk is applicable to non-life business only, because this risk is captured within mortality, longevity and lapse risk for life insurance business. Note that to the extent that this risk is already captured by assessment under morbidity/disability risk, it would not be included here to ensure there is no double-counting of risk.*

Several stakeholders said there would be no problems, while several said it would be difficult to separate Morbidity/disability from other non-life risk due to data limitations. One said treatment of products with life-like characteristics needed to be clarified. Some examples: workers compensation, health insurance, personal accident, liability claims that behave like an annuity etc.

One stakeholder said CAT payouts are typically short and hence are often not a material claim reserving risk

**IAIS Response:** The IAIS is considering a re-design of the treatment of health risks (including morbidity/disability) and intends to continue examining this issue in 2016 Field Testing.

## 9.2.2.6 Claims Risk

**Question 95.** Is it appropriate to use a factor-based approach to calculate claim reserve/revision risk? If not, what other alternative approaches in Section 8 could be used? How would it/they work?

AMF, BaFin, EIOPA, MAS, NAIC, OSFI and six other Members support using a factor-based approach.

The majority of stakeholders support factor-based approach, with two caveating that company experience should be used to adjust the factors. Some said that stochastic models should be an option. Some noted a factor-based approach would face challenges in reflecting non-proportional reinsurance. Several suggestions included:

- Use ORSA-style cash flow and stress testing data to supplement factor-based approach
- Use a formula-based approach to apply larger factors to smaller books of business
- Use methodology to derive a coefficient of variation of the reserves (e.g. Mack (Ultimate basis) or Merz-Wüthrich (1-year)) per line of business / segment and then apply a distribution function (e.g. lognormal). The VaR and TVaR could then still be calculated analytically.

**IAIS Response:** For the development of the standard method for ICS version 1.0, the IAIS will continue to assess a factor-based approach for the calculation of the claim reserve/revision risk. Other methods (e.g. company-specific adjustments to the factors, internal models) will be considered as part of the move from ICS version 1.0 to ICS version 2.0.

## 9.2.2.6 Claims Risk

---

**Question 96.** Is it appropriate to apply the factor to current estimates? If not, what exposure would be more appropriate? Why?

AMF, BaFin, EIOPA, MAS, NAIC and six other Members support using current estimates.

MAS said further guidance might be needed from the IAIS on how to derive current estimates.

NAIC noted that factors may need to be different if each valuation approach determines current estimates differently.

The majority of stakeholders support using current estimates. One stakeholder commented that factors need to be different under MAV / GAAP+ if methods to calculate reserves are different.

**IAIS Response:** For the development of the standard method for ICS version 1.0, the IAIS will continue to assess a factor-based approach to be applied to the net current estimate of claims for the calculation of the claim reserve/revision risk.

## 9.2.2.6 Claims Risk

**Question 97.** What segmentation of business lines would be appropriate for claims reserve/revision risk? Should the segmentation be the same for premium risk? Why or why not?

NAIC and one other Member said a possible way forward is to map jurisdictional lines to smaller number of IAIS-defined buckets/groupings each of which consist of products with similar risks.

AMF, BaFin, EIOPA, MAS and five other Members support using the same segmentation as premium risk.

The majority of stakeholders said that the same segmentation as premium risk should be used; only one stakeholder said premium and claims risk segmentation need not be the same. Several stakeholders said existing jurisdictional segmentation should be used. Some specific suggestions for segmentation included:

- Short vs long tail
- Annual statement high-level groups of products
- Separate specific liabilities with particularly significant uncertainties e.g. asbestos

**IAIS Response:** As part of the development of the standard method for ICS version 1.0 the same segmentation will be adopted for premium and claim reserve/revision risks.

## 9.2.2.6 Claims Risk

**Question 98.** Is the proposed grouping by geographical region appropriate for claim/revision risk? If not, what should be the appropriate geographical grouping?

MAS agreed with the segmentation if calibration work indicates different factors for these different regions.

CIRC said China should be its own separate category.

AMF, BaFin, EIOPA and four other Members said that more granularity is needed.

BaFin, EIOPA and four other Members made the same proposal as for premium risk in Q92.

Several stakeholders said it was not appropriate, while a small number of stakeholders agreed with the proposed geographic grouping. Issues raised included the high amount of variability within each geographical segment and the inability to capture geographic diversification within each geographic grouping. One stakeholder said that the grouping would be problematic for lines that are not jurisdiction-specific (e.g. Marine, Aviation).

Suggestions were to at least differentiate between different continents, or to use jurisdictional line of business segments which would already capture geographical differences in risk.

**IAIS Response:** The IAIS will continue to assess, through field testing, the appropriate level of granularity to be included in the ICS standard method.

## 9.2.2.6 Claims Risk

**Question 99.** If GAAP with adjustments were used as an alternative valuation approach for the ICS, detail those adjustments, if any that would be required to produce a comparable claim/revision risk charge to those produced using the market-adjusted valuation approach under the claim/revision risk charge described in this section.

BaFin, EIOPA and four other Members said that the methodology for calculation of ICS capital requirements should not be tied to a given valuation methodology and there should be only one ICS standard method.

NAIC suggested to include a loss discount and removal of profit margin since MAV is discounted and GAAP reserves are not (thus including an implicit margin), and take care not to double count reinsurance business.

A few stakeholders said the key adjustment would be to reflect the differences in reserves (discount vs undiscounted) between MAV and GAAP with Adjustments. A couple of stakeholders said no adjustments would be necessary. One stakeholder said comparable outcomes can be obtained by applying stresses. One said jurisdiction-specific adjustments would be needed based on jurisdictional specificities. Two stakeholders said it would not be possible to produce a comparable outcome using GAAP with Adjustments.

**IAIS Response:** As the GAAP with Adjustments approach is further developed, interactions with and implications for Non-Life Risks will be considered.