

Draft Opinion on Documentation required for recalibrations to be carried out at CAT WS

In the framework of the current simplification of the submodules:

- Natural catastrophe risk
- Health catastrophe risk and
- Man-made catastrophe risk

Which are developed by the SCR review Project Group's Work Stream on the catastrophe risk module (CAT WS), a sub-work stream was created with the aim to provide a list with the key points that need to be documented to allow (re)insurance undertakings and supervisors to assess the appropriateness of the standard formula to their specific risk profile and to make use of it.

From our point of view, great part or all topics covered by CAT WS should be documented with one main background assumption: to provide the enough granularity of the process that could let undertakings to replicate by themselves the calculations made for obtaining new parameters without any barrier, i.e. with enough formulae, techniques and methods description, etc.

When this hypothesis is fulfilled, it will be understood that the entities perceive enough the calculation behind those parameters. This promotes also the spreading of statistical/mathematical techniques knowledge to undertakings.

In addition to the submodules susceptible to change, if it is found that any sub-module without any change in its calibration could have an improvement of its documentation (because it is found new data about its calibration not covered by any paper), this improvement should be made.

Underlying principles

When preparing the documentation, it is proposed that the following principles are followed;

1. Transparency – the review of the parameters should be fully evidenced and understandable.
2. Reproducibility – all calculations should be able to be accurately reproduced.
3. Consistency – documentation should be of a consistent standard as required in other parts of the SII framework.

As part of its ORSA process an undertaking must assess whether its risk profile deviates from the assumptions underlying the SCR calculation and report whether these deviations are significant. (see guideline 12 of the [EIOPA Guidelines on Own Risk and Solvency](#)).

The calibration documentation must, therefore, also provide sufficient information for undertakings to make this assessment. This is primarily expected to be identification of the difference between the exposures underlying the standard formula and their own portfolios.

Topics:

In the case any importance materiality threshold should be given, our proposal of the most important topics to be documented should be (in the case they are finally developed).

- *Recalibration of specific cat nat perils/countries:*
 - Hail risk in Czech Republic,
 - Windstorm risk in Finland,
 - Earthquake risk in Greece,
 - Windstorm and hail risks for Slovenia,
 - Windstorm risk in Sweden,
 - Flood and windstorm risks in Hungary,
 - Earthquake risk in Slovakia,
 - Windstorm risk in Spain.
- *Simplification on Cat Nat Europe Cresta Relativities* i.e. the use of country factors, or alternatives. In the case the "do nothing" option goes on, maybe some improvement of the current documentation should be carried out by those who participated in prior TF's.
- *Man Made Fire Risk* recalibration when another approach is used different from the current one.
- *Cat Health* recalibration or change in the way it is measured.
- *Motor vehicle liability* improvements.
- *Marine Risk* in the case any improvement is made.

Scheme to be followed:

The final provider of the new parameters/granularity should be in charge of the description of the whole process. All providers should follow the same scheme when describing the calculation, as follows:

- Brief description of the discussion which led to the recalibration and/or to the change in the structure of the submodule.

Data:

- Description and definitions of the data which has been used for recalibration,
- Needed characteristics of the data for complying with the methods used over this data.
- Source and granularity.
- Details of policy features inherent in the data sets.
- Rationale for any data sets which were disregarded.
- Treatment for incomplete/incorrect data.
- Validations of data.

- Explanation of how the data sets were aggregated.
Data should be given when it is possible.

Method/modelling

- Description on how assumptions/granularity choices were developed.
- Methods and techniques used for the re/calibration.
- Alternative methodologies discussed and disregarded.
- Any alterations made to the results of the recalibrations.
- Example covering the full process of the calculation. Applying the process described before to an example of data which should be part of the data used for obtaining the new parameters.

Expert judgement

Particular transparency should be sought where expert judgement is being applied. The [EIOPA "Guidelines on the use of internal models"](#) (chapter 4) provides guidance on assumption setting and expert judgement and provides a good basis for the documentation of the calibrations of the natural catastrophe submodules.

- The experts involved.
- Process undertaken to form any opinion.
- Information basis used to form opinion.
- Agreed rationale for the opinion.
- Any challenge/validation of the judgement.
- Alternative opinions discussed and disregarded.