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EIOPA's catastrophe risk work stream (CAT WS) - Draft minutes for 24 May 2017 meeting

Participants: Jens Berger (BaFin, DE), Jérôme Bourtembourg (NBB, BE), Michael Brunner (CRO Forum), Ian Cook (Willis Towers Watson), Susanne Diebel (AIR), Matthew Eagle (Guy Carpenter), Camille Graciani (EIOPA), Eduard Held (PERILS, via phone), Silvia Herms (AMICE), Tom Jowett (JLT Re), Francisco Loureiro (ASF, PT), Laurent Marescot (RMS), Roy Nitze (EIOPA), Ioannis Papanikolaou (Academic, GR), Adam Podlaha (Aon Benfield [via phone]), Victorien Poncelet (ACPR, FR), Nicolas Pondard (PRA, UK), Laura Prieto (MINECO, ES), Angus Scorgie (Insurance Europe), Jörg Steffensen (RAB), Arturo Valerio (IVASS, IT), Gerlof Wiersma (DNB, NL), Justin Wray (EIOPA)

1. Draft agenda

Announcements:

August meeting envisaged as full-day (24 Aug 2017), plus half-day (25 Aug 2017)
September meeting: poss. 13 Sep as full-day plus 14 Sep 2017 half-day

Marine risk:

EIOPA to check the source of the issue in public consultation responses; Insurance Europe will liaise with Tom and Helen (via Matthew) and will propose solutions for discussion during the August 2017 meeting

Motor vehicle liability risk:

EIOPA will inform Insurance Europe on origin of the issue and will facilitate contact to a member of the SCR review project group (Pirkko Welin-Siikaluoma, FI NSA)

2. NatCat simplification: discussion of pros and cons of proposed options

The analysis prepared by the simplification sub-work stream was presented and discussed.

Members concluded to focus only on options

5. Allocation of the (non-allocated part of the) undertaking's exposure in the region to the CRESTA zone with the highest risk weight in the region and

6. Allocation of the non-allocated part of the undertaking's exposure in the region on country level to the average of the undertaking within the region with subsequent application of the "normal" standard formula approach.

For option 6, members suggested to have a minimum percentage threshold for the already allocated part (or in turn max % of unallocated contracts) of the portfolio in order to prevent arbitrage.

It was also suggested to allow for option 5 in case there is less than the minimum percentage allocated.

If an undertaking already implemented allocation to zones for the current SF approach for some part of its portfolio, no falling back behind these standards should be allowed for in relation to this part of the portfolio.

Members of the sub-work stream to process the results of the discussion into conclusions in the simplification analysis document.

Ian and Matthew volunteered to implement the final choice for simplification in a new helper tab to allow some comparison.

3. Report on progress of the recalibration sub-work stream

Eduard presented the outcome of the information request to model vendors, reinsurance brokers and reinsurers with respect to exposure data and models available for each scenario.

The subsequent discussion was related to the actual process of recalibration, which was not entirely settled when the topic was closed.

The main steps of the process were subsequently discussed and merged with results from the meeting discussion, such that an outline of the process is as follows:

1. Model owners should calculate the country risk factor for each recalibration scenario (PERILS IED where available for scenarios; proprietary data elsewhere; data should be 1/200 years Occurrence Event Losses in % of country-wide property sums insured). Normalisation of exposure data to % in order to retrieve comparable, standardised Probable Maximum Loss (PML) numbers. Model owners are asked to describe the main policy conditions used in the calculation.

For scenarios with more than one candidate country factor (more than one data-model combination available) it needs to be discussed as part of this first step

- whether and how (according to what criteria) some of the submitted country factor candidates should be discarded, and
- whether and how a single country factor from the set of remaining candidate country factors, or a combination thereof should be used.

2. Ideally, a "standardised exposure data set" would be constructed. Whether and how this is possible will be subject to discussion for the CAT WS.

The created "standardised exposure data set" would be distributed to model owners for input to their respective model.

With this data set, modellers should propose risk zone weights (i.e. CRESTA relativity factors) for each scenario. The CAT WS should discuss and decide how to best choose a final risk weight set from the proposals.

These final risk weights are subsequently used to calculate the SCR based on the (normalised) sums insured from the standardised exposure data set, as allocated

to the risk zones. This is done by multiplying the normalised sums insured per risk zone with SF correlation matrix for the region and with the risk weights per zone, leading to loss numbers. These loss numbers will then be used to calculate SCR by applying reinsurance and risk mitigation. This SCR number should largely coincide with the one obtained at country level under step 1.

Where this does not coincide, a factor of $SCR_{\{\text{risk zone level}\}}/SCR_{\{\text{country level}\}}$ is used to scale the risk zone weights appropriately. This scaled version is then the recalibrated set of risk zone weights for the particular scenario.

Ian Cook will provide further input on the process by a presentation during the 13 July 2017 telecon.

3. Discussion of mandatory elements for documentation for recalibration scenarios

Item was merged with the discussion on the previous item 3. A paper was provided with proposals for criteria for appropriate documentation.

It was concluded that there is a requirement for high documentation standards. The guiding principle could be, that good arguments need to be provided, wherever the documentation has to deviate from a maximum level of transparency.

E.g. in terms of recalibration, full replicability of the recalibration output could be regarded as this maximum level of transparency. However, there are several points of the process outlined under item 3, where providers of proprietary data, such as exposure data, or model assumptions, certain types of output might have justified concerns regarding the intellectual property integrated in the aforementioned pieces of information. If there would arise a risk of identification of intellectual property from the disclosure of these pieces of information, then there is good reason to state this. Consequently, giving output of a model part, provide sufficiently aggregated information or other ways and means should be used to strike a balance between transparency requirements for the documentation and protection of IP.

The **sub-work stream** should process the findings of the discussion into the draft document, also building on Laurent's and Nicolas' comments that were given in the version of the 'documentation' paper which was circulated for the meeting. Further progress to be presented during the 24 / 25 August 2017 meeting.

4. Analysis of options for simpler exposure measure in fire risk sub-module

The fire risk sub-work stream provided a paper analysing five different proposals for a simplified approach to fire risk in the SF. As was recommended by the paper, the conclusion from the discussion was to further develop Proposal 4.5 from the paper, which focusses the top 5 exposures and requires to assess a scenario where a 200m circle around each of these five addresses is hit by an event.

The main points of the discussion of proposal 4.5 to be further analysed are

- o Should the requirement be to assess all 200m radius circles in which the largest top 5 exposures exist rather than using it as a central point?
- o Given it is a simplification, should the radius of the exposure be increased (to 250/300m) to add prudence?

- o The calibration of the underpin was discussed briefly – more detail on this is needed.

General issues to be analysed

- o is the simplification proposal to be put forward as an alternative or a replacement of the existing volume measure?
- o Should the future simplification approach remove the need to geocode the risks?

EIOPA confirmed that the question of whether the exposure is measured on a gross or net basis (section 5) is being assessed separately and they are undertaking an information request regarding this.

It was noted that in the case of option 4.5, the reinsurance guidelines state that the exposure would be classified as a 'risk catastrophe event' rather than an 'aggregating catastrophe event.'

In terms of geocoding of risks, it was noted that the simplification did not remove the need to geocode the risks. EIOPA, with support from some members, felt that removing this requirement was a step backwards in terms of risk sensitivity.

Finally, it was noted that some testing of the proposal would add weight to the argument.

Next steps for **the fire risk sub-work stream**: developing the paper in order to address the issues above for presentation during the 24/25 Aug 2017 meeting.

5. Issue paper on '10a disability' - discussion of possible approaches (simplification, re-calibration, clarification)

Victorien proposed a change to the Health Cat sub-module:

- Delete the 10yr unrealistic scenario

- Keep the 100% disability for the sake of simplification

- Keep the 60% of people injured

together with some sensitivity analysis. The findings were, that the new proposal would be slightly less risk-sensitive, with the final assessment on eligibility of the 10a scenario deletion for the group (additional evidence needed).

Next step: find further evidence for the proposal.

6. Ideas on options for the 'benefits payable' issue in mass-accident and pandemic risk sub-modules

Victorien presented some sensitivity testing for input parameters to the affected scenario.

It was proposed to use average values for numbers for medical consultations (3 consultations) and number of days at hospital (8 days), unless new data arises, given the minor impact as compared to the current SF. It was proposed that this should be harmonised in the DA.

EIOPA GL should clarify on how to compute: age, mean costs for death, hospital day, medical consultation, annual disability cost, no formal care.

Per-country benchmarks should be provided for all EU Member States.

What is needed is input to comparable analysis as the one done by Victorien for France, in order to perform it for all EU Member States.

Silvia and Angus agreed to collect input from their members to prepare this analysis.

7. Alternatives for accident concentration risk calculation

Two alternatives were proposed for simplification:

- Either modify DA to recognize the 'biggest collective contract' simplification, or
- Stick to the actual DA and develop EIOPA GL which underline that, generally speaking, the 'biggest collective contract' simplification is good, but companies should ensure it fits their own risk profile.

Way forward: collect evidence to support or reject the 'biggest collective contract' simplification proposal -> to be assigned to CAT WS members as a task.

8. AoB

n.a.