Response to EIOPA's consultation paper on natural catastrophe risk reassessments in the standard formula

Our reference:	ECO-SLV-24-155	Date:	20/06/2024
Referring to:	EIOPA consultation on NatCat risk reassessments in the standard formula		
Related documents:	here		
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Pages:	10	Transparency Register ID	33213703459-54

Introduction

Q53: Do you have any other comments?

- General comments
  - Insurance Europe acknowledges EIOPA's efforts to reassess the natural catastrophe (NatCat) risk charges. It also supports the recalibration of the NatCat parameters to reflect the latest developments in climate science, recent NatCat events, and NatCat modelling capabilities.
  - IE is committed to collaborating with EIOPA on the Standard Formula (SF) NatCat reassessment. In March 2023, IE submitted the industry's response to EIOPA's call for evidence to reassess the NatCat SF Solvency Capital Requirements parameters.
  - The industry suggests that the following comments and observations can further enhance the accuracy, consistency, and transparency of the NatCat reassessment process:
    - To ensure better alignment with the SII Review, EIOPA should avoid introducing non-significant recalibrations to the current factors. Article 304a of the SII review states that EIOPA should recalibrate risk parameters in cases of significant discrepancy between current calibration and actual risk. However, EIOPA assesses some of the recalibrations as "slightly increasing".
    - To improve transparency, EIOPA could provide additional details justifying the rationale behind the proposed recalibration when there has not been significant events since the last calibration or the model suggests an increase. The lack of detailed justification makes it challenging to understand the reasoning behind the proposed changes. For the recalibration of some parameters (e.g. BE and NL Hail), while EIOPA states that no significant events have occurred since the last

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calibration to justify these changes, the model itself suggests the need for an increase.

- EIOPA could improve transparency on the modelling inputs used in the calibrations, along with providing more information regarding the role of expert judgment. For example, for some parameters an average value is presented, while for others a range is provided. EIOPA would improve transparency by disclosing the model's names, data used, and ideally the results even if there were anonymised. At the minimum, if the full results can't be disclosed, identifying the models used particularly when proposing changes, would enhance stakeholder comprehension of the outputs and EIOPA's proposals.
- In some countries, such as Germany, it has been observed that the calibration of certain NatCat risks in the SF are conservative compared to the underlying risk. This is revealed by many users of the SF, who additionally use their own NatCat models to assess their risks.
- It should be further noted that the implicit modelling of contract limits and deductibles leads to an overestimation of the risk, particularly for those companies/policies with large deductibles and low contract limits. IE would welcome further transparency on the assumptions used to model contract limits and deductibles to allow insurers a better view of the consistency of their individual risk profile with the standard formula assumptions.
- To improve the accuracy of the NatCat parameter recalibration process, EIOPA should consider how adaptation measures are influencing climate change. EU member states and individuals have implemented measures to adapt to these changes, and this trend is likely to continue. These are fundamental to managing the new emerging risks and, at the same time, and because it is technically sound, a way should be found to recognise the associated risk reduction in the SF.

- The tables in the Executive Summary, from page 7, should have the factors written with "%" as in Annex VII in the Solvency II regulation.

- Germany - Earthquake
  - The earthquake risk factor Q of 0,10 % for the region of Germany seems to be rather high, as the results of different models show. Though it is conceivable that earthquakes with high claims occur in Germany, however, these have only a very low probability of occurrence. This should be reassessed.

- Poland - Flood
  - EIOPA's 2023/2024 (re)assessment exercise of the NatCat SF did not consider the (re)assessment/(re)calibration for Polish floods. Poland's investments in flood protection and climate change adaptation have significantly reduced flood risk, mean that the risk of flooding is now at a much lower level than when the Polish flood calibration was set at 0.16%.
    - In Poland hydrological droughts are becoming more frequent due to diminishing snow cover and higher temperatures.
    - The Institute of Environmental Protection predicts temperature increases under two climate scenarios (RCP4.5 and RCP8.5). RCP4.5 foresees a 1.3°C rise by 2100, while RCP8.5 predicts a stronger increase. Annual precipitation may slightly increase but with cyclical variations.
    - Historical data show severe droughts between 1975-1990 and increased frequency of flash droughts from 2005-2020.

- The Oder River Basin Flood Protection Project aims to mitigate flood risks through infrastructure improvements, including the Racibórz reservoir and Wrocław Water Junction upgrades.

Q1. Do you have any comments about the (re)assessment/(re)calibration for Romania earthquake?

- The evidence does not support EIOPA's proposed calibration. EIOPA's proposal does not consider the impact of the Romanian Natural Disaster Insurance Pool.

- Market particularities
  - In view of the existing legal framework, the following insurance companies can be distinguished in Romania in terms of portfolios covering catastrophic risks:
    - The Natural Disaster Insurance Pool (PAID)
      - PAID is an insurance-reinsurance company with private capital, formed by the association of insurance companies for the conclusion of compulsory home insurance, in accordance with the provisions of Law no. 260/2008 on compulsory insurance of dwellings against earthquakes, landslides and floods ("Law 260/2008").
      - According to the provisions of Law 260/2008, PAID manages the compulsory home insurance system, which covers three basic risks specific to Romania:earthquake, floods and landslides.
      - PAID issues the mandatory prime risk policy covering named perils related to natural disasters (PAD), with a fixed amount insured (limit) set by the law, acting as a deductible for the other insurance companies writing facultative household contracts.
      - Facultative household contracts cannot be issued in the absence of a PAD policy.
      - The PAD policy exclusively covers residential dwellings (excluding content and annexes not structurally connected to the dwelling) against the risks mentioned hereabove.

    - Insurance companies with facultative insurance portfolios relating to residential and/ or commercial properties (Facultative insurance companies)
      - Facultative insurance companies operating on the Romanian market may cover both residential and commercial dwellings.
      - The residential dwellings portfolio of insurance companies covers catastrophic risks exceeding the PAD policy limits. Therefore, the PAD policies act like a deductible for the facultative insurance companies.

- Standard Formula calibration
  - EIOPA's proposal comprises of new specific country factors for earthquake risk and flood risk and changed zonal weights for Romania. PAID is excluded from the calibration of both risks, flood and earthquake.
  - However, due to the prime risk characteristic of the PAD policy, a large proportion of the natural catastrophic exposure for the residential line is retained by PAID. Thus, PAID's modelled 1 in 200 PML using the proposed Standard Formula shows totally unreliable results, significantly lower than the results obtained using various catastrophic tools.

- Given the above, in order to reflect the specificities existing in Romania, there would be a need to include PAID in the calibration for both risks.

- Consequences of PAID's exclusion from the calibration
  - For PAID
    - PAID applies the Standard Formula for the solvency quantitative and qualitative reporting. On a regulator basis PAID monitors its underwriting risk using the results of the international catastrophic vendors which were part of the Experts Group supporting the Standard Formula recalibration.
    - Although PAID is already assessing the solvency ratio for the risk profile on a regular basis, the application of an internal model is subject to a long process, requiring an increased number of human and financial resources but leading to similar quantitative results.

  - For market consistency
    - According to the Annual Report of Financial Supervisory Authority in Romania, at the end of December 2023 PAID's penetration rate was 21.21%, covering 2.047.566 insured dwellings from 9.655.685 total dwellings located in Romania. Comparing with PAID, the number of total facultative contracts written by the other insurance companies reached a total of 1.685.094 insured dwellings, with a penetration rate of the facultative policy of 17%.
    - As such, PAID has a significant representativity at the level of the local market, having a strategic importance due to its social purpose.
    - Under EIOPA's proposal, the Standard Formula may become completely irrelevant for PAID as the company's main risk will no longer be reflected.

- Conclusion
  - Given all of the above, in order to address all the specificities of the insurance market in Romania, we appreciate PAID should be part of the calibration of the Standard Formula for Romania.
  - Moreover, the calibration should establish different values for the country factors Q(earthquake®) and Q(floods®) for PAID and the insurance companies.

Q12: Do you have any comments about the (re)assessment/(re)calibration for Martinique windstorm?

- **The evidence does not support EIOPA's proposed calibration.**

- The update of the parameters on ultramarine territories is considered to be overly conservative, at least in Martinique. An increase could be expected, but not this big. As mentioned in the consultation paper, for all of the three French ultramarine territories, uncertainty remains quite high. Given the limited number of comparable models, nearly doubling all the risk factors is too conservative even to take into account Hurricane IRMA

Q13: Do you have any comments about the (re)assessment/(re)calibration for St-Martin windstorm?

- **The evidence does not support EIOPA's proposed calibration.**

- See comments to Q12.

Q14: Do you have any comments about the (re)assessment/(re)calibration for La Reunion windstorm?

- **The evidence does not support EIOPA's proposed calibration.**
- See comments to Q12.

Q22: Do you have any comments about the (re)assessment/(re)calibration for Germany flood?

- **The evidence does not support EIOPA's proposed calibration.**
- The calibration for the parameters for flood risk in the natural catastrophe risk module is conservative. Even the enormous damage caused by the flooding of the Bernd rainstorm in 2021 is covered by the current calibration by far – especially in motor insurance, where the discrepancy between observed claims and flood risk is inappropriately high. Thus, there is evidence that the factor for motor floods should be decreased.

Q26: Do you have any comments about the (re)assessment/(re)calibration for Sweden flood?

- **The evidence does not support the EIOPA proposed calibration.**
- There appear to be typo errors with regard to the different proposed country factors for Sweden. In the second section on page 43, it says:
  - "The model results suggest a range of 0.27% - 0.55%. It has been concluded by the Nordic subgroup, that the loss history of Sweden suggests a higher country factor than the country factor for FI (0.04%). A country factor of 0.45% is proposed for Sweden. This country factor captures most of the model results."
- When compared to Finland's factor level of 0,04%, flood table in Executive Summary (page 8) where it says 0.045 and WS factor of 0.083%, we suspect that the correct wording should be:
  - "The model results suggest a range of 0.027% - 0.055%. It has been concluded by the Nordic subgroup, that the loss history of Sweden suggests higher country factor than the country factor for FI (0.04%). A country factor of 0.045% is proposed for Sweden. This country factor captures most of the model results."
- Besides this typo, we agree that there is a need to recalibrate the parameters for flood in Sweden and the other Nordic countries. But, the resulting capital charges for floods seem high in Sweden in relation to historical loss data. In particular, the resulting capital charges indicate a split between windstorm and flood losses that are not in line with the historical loss data in Sweden, where windstorm losses are more prominent.

Q27: Do you have any comments about the (re)assessment/(re)calibration for Finland flood?

- **The evidence does not support EIOPA's proposed calibration.**
- We agree that there is a need to recalibrate the parameters for flood in Finland and the other Nordic countries. But the resulting capital charges for flood seems high in Finland in relation to historical loss data. In particular, the resulting capital charges indicate a split between windstorm and flood losses are not in line with the historical loss data in Finland, where windstorm losses are more prominent.

Q28: Do you have any comments about the (re)assessment/(re)calibration for the Netherlands flood?

- **It is premature to include calibrations for NL Flood risk given the uncertainty regarding the possible future public-private scheme. It is preferable to wait until this is agreed before developing calibrations. The Dutch government recently sent a letter to the Dutch parliament (here) , announcing that they were not going ahead with the public-private flood-coverage scheme that the draft EIOPA advice discusses, re-enforcing our objections to this part of the advice"**

- On p.45 EIOPA says:
  - "*There is still uncertainty regarding the plans on a public-private scheme in the Netherlands for primary flood risk. As primary flood risk is currently not insured, it should not be captured in the country factor. However, it might be that the primary flood risk is insured in the future. Therefore, this uncertainty leads us to being more conservative in setting the NL flood factor for the current flood coverage. Therefore, it is believed that 0.035% is conservative and that further increases of the factor in the future are still possible when flood models for the Netherlands are further developed or when primary flood risk is covered. For this reason, a country factor of 0.035% is considered appropriate and thus proposed as the country factor for the Netherlands*".

  We agree that because the primary flood risk is not currently insured, it does not belong in the NL NatCat factor. But EIOPA says it wants to include that factor anyway, as in the future this may change. We believe it is fundamentally incorrect to anticipate possible future developments in the standard formula, especially when they are uncertain.

Q29: Do you have any comments about the (re)assessment/(re)calibration for Denmark flood?

- **Agree that the data supports the calibration.**

- The main reason for flood risk in Denmark is coastal floods; when wind pushes seawater down through the Øresund and the inland Danish waters, the water can be pushed up through streams (and causing fluvial), as well as during strong storms on the west coast.

- The 0.04 factor is considered suitable for Denmark if the flood includes coastal flooding.

Q32: Do you have any comments about the (re)assessment/(re)calibration for France hail?

- **Agree that the data supports the calibration.**

- Given the experience over the last few years, a recalibration of the regional parameter for the hail peril seems appropriate to better capture the risk considered.

Q34: Do you have any comments about the (re)assessment/(re)calibration for Germany hail?

- **The evidence does not support EIOPA's proposed calibration.**

- The increase of the factor motor hail (from 5) to 10 seems to be reasonable given the evidence. However, raising the country factor hail and setting it to 0,03 is not justified:
  - GDV data show that household and commercial contents play a subordinate role in windstorm and hail. The risk is overestimated by the proposed factor. This is not adequately reflected in the standard formula.
  - The substantial overall increase of the risk factors (country factor plus motor factor) for motor adds significance to the risk weights of the different risk zones in Germany. If the country and the motor factors for hail were increased as proposed by EIOPA, any

discrepancies that may exist between the given risk weights by the standard formula and the actual hail risk would even enhance these discrepancies. If only the factor motor hail was adapted, any discrepancies would be less stressed.

- Against the background of an envisaged doubling or even tripling of the motor hail risk factors for Germany, the following aspect should be considered: evidence clearly shows that the risk factor for motor overestimates the risk for flood. A reduction of the motor flood factor should be considered.

Q41: Do you have any comments about the (re)assessment/(re)calibration for France subsidence?

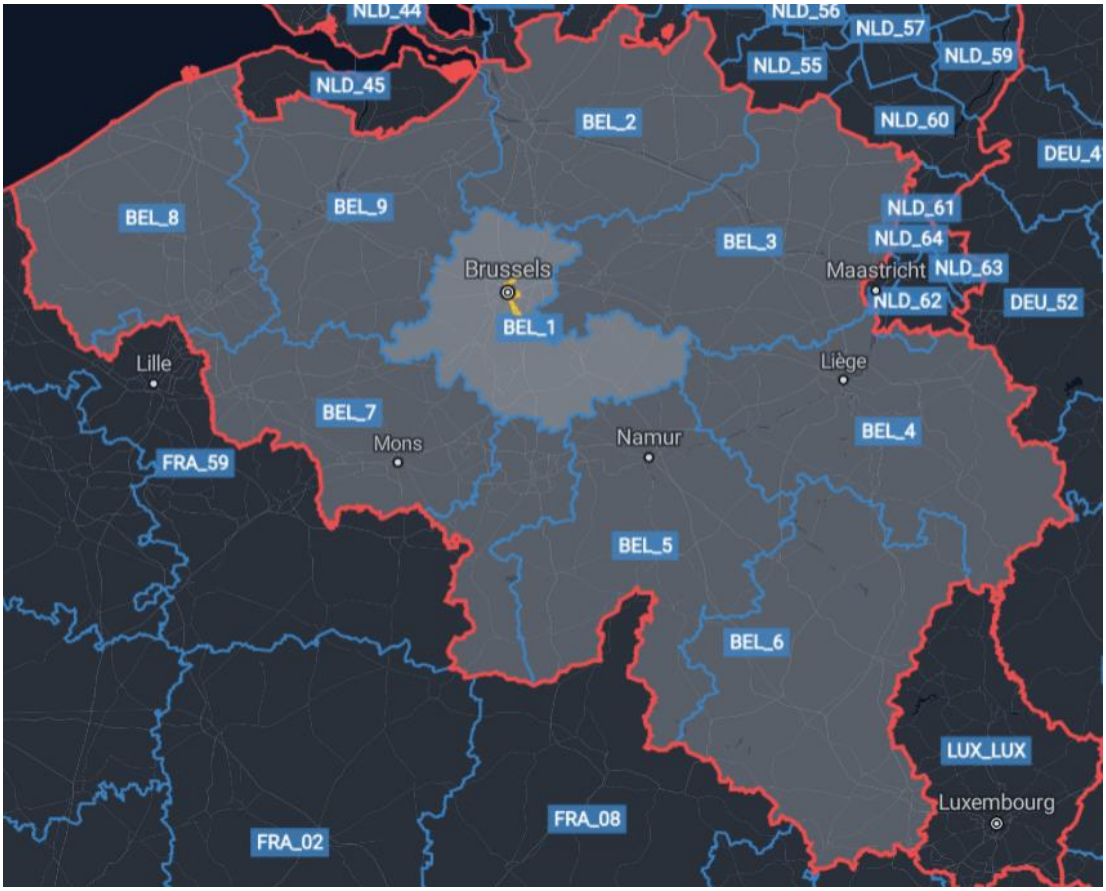
- **The evidence does not support EIOPA's proposed calibration due to modifications in the French National Scheme.**

- On the topic of subsidence, the French National Scheme is currently being reviewed and the definition of the subsidence covered by the scheme is supposed to be altered. In such a context, strongly recalibrating the parameters for the French regions could somehow be premature since we do not know yet the possible interactions with the modification of the French National Scheme. Moreover, it is important to note that though the last two years have seen an exceptional claim level and, whilst being mindful of the current climate change context, one should be cautious in suggesting a trend from a few observed points and advocate for some moderation in the changes proposed.

Q42: Do you have any comments about the (re)assessment/(re)calibration for Belgium subsidence?

- **The calibration for subsidence risk in Belgium should be lowered**

- Subsidence risk is limited to certain regions due to geography
  - The proposed zonal relativity factors do not appear to make much sense. The zones where subsidence is actually possible are very limited – these are limited to the zones containing the Kortrijk and Boom formations. In addition, no damage has been reported in the Boom region. Furthermore, subsidence is only covered if it is caused by a natural phenomenon (cf. art. 124 § 1 d) wet verzekeringen). Hence, in zones outside of the Kortrijk and Boom formations, the relativity factor should be close to zero given the geology is not prone to subsidence (as covered by law). Especially in Cresta zones 4, 5 and 6 in (south-east Wallonia), the zonal relativity factors should be equal to zero.
  - Insurance Europe, therefore, requests further information on the rationale of the zonal calibrations for the Belgian subsidence risk and also a recalibration. The Belgian insurance companies are keen to further discuss the issue and to provide relevant models and information on the geology of Belgium to EIOPA.
  - On the map below, you can find a reminder of the cresta zones. In the next figure, you can find the identified risk areas. In the fully coloured areas, subsidence risk is present. In the shades areas, the risk is only local, meaning the risk is lower.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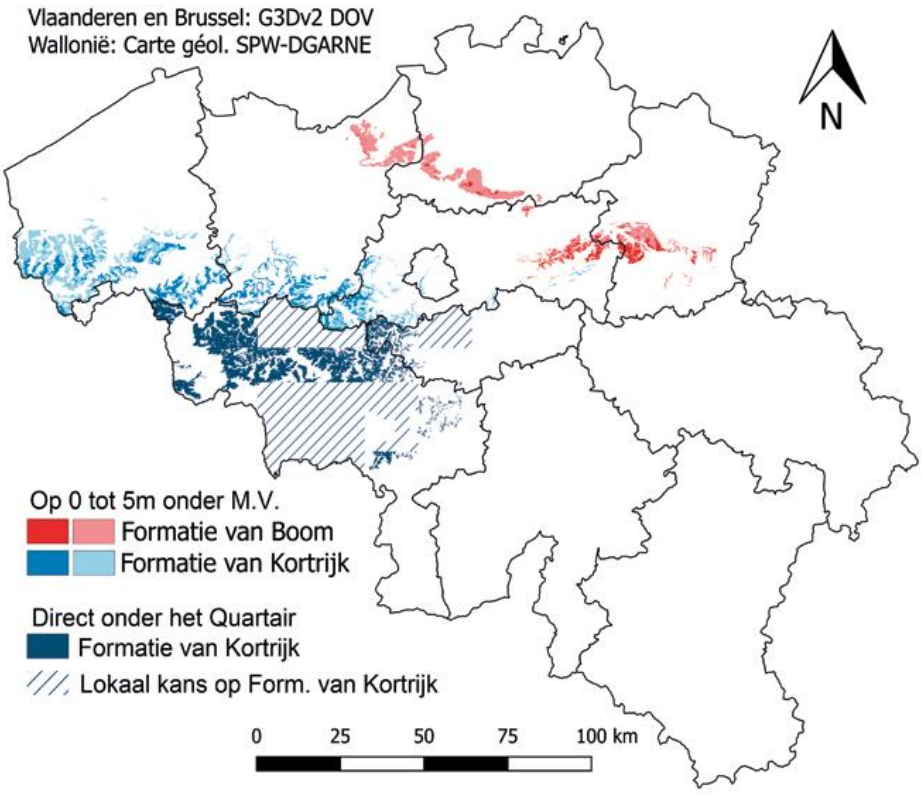
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- Legal changes do not imply changes in observed subsidence damage
  - It is referred to the following paragraph:
    - *As for Belgium, in its interpretative Law of 29 October 2021, the legislator confirmed damage caused by subsidence are fully included in the mandatory cover of natural catastrophe perils included in the fire insurance policy for simple risks. Since the last calibration, losses due to subsidence have increased in Belgium.*The fact that a recent change in the law now confirms that subsidence is a mandatory cover of fire insurancesimple risks, does not imply and does not prove that there will be more damage due to subsidence. EIOPA should substantiate this claim.

- Limited claims in the past
  - There have been a limited number of claims since the aforementioned legal changes. It is recognised that climate change could potentially raise these risks. The severity and frequency of droughts could be higher as a consequence of climate change, which is an important risk driver for subsidence. At the same time, EIOPA needs to recognise that these risks are only a mandatory cover for fire insurance simple risks (e.g. for housing, hospitals, schools and religious buildings). These insurance covers are almost always only one year contracts. Hence, insurance companies have the ability to raise premiums when a raise in subsidence is observed.

- EIOPA's study is not published and the expert judgment cannot be verified
  - EIOPA is asked to publish its study on the increase of subsidence losses in Belgium, so that stakeholders can verify EIOPA's expert judgment.

- The data on France cannot be extrapolated to Belgium
  - The CCR data cannot simply be extrapolated for Belgium. The quality of buildings and building standards (e.g. for foundations etc) in Belgium is not comparable to France.

Q44: Do you have any comments on the impact of wildfire for the European insurance sector

- The industry acknowledges the existence of new catastrophe perils (e.g. drought, coastal floods and wildfires). Nevertheless, these perils are less common, and their current exclusion would not significantly impact European solvency. For most countries, the impact of these risks is considered low (e.g. wildfire in Germany or drought in Germany and Denmark).

- The European insurance sector is currently monitoring, studying and pricing these perils.

- As such, the industry proposes to wait for more data before integrating them into the standard formula. The industry considers this approach as the most prudent. Creating dedicated submodules for these perils could also complicate correlation estimates and lead to regulatory overestimation of risk.

Q47: Do you have any comments on the impact of coastal flood for the European insurance sector?

- See Q.44

- Further assessment of how coastal floods could be integrated into the standard formula architecture is also merited.

Q48: How should coastal flood be included in the SF?

- See Q.44 and Q.47

Q50: Do you have any comments on the impact of drought for the European insurance sector?

- See Q.44
- Further assessment of how drought could be integrated into the standard formula architecture is also merited