V.2.6. Proportionality (PoP= Principle of Proportionality)

TP.7.1. This subsection aims at providing an assessment on the way proportionality should be approached in the context of a valuation of technical provisions, to ensure that actuarial and statistical methodologies applied are proportionate to the nature, scale and complexity of the underlying risks.

The Principle of Proportionality has various dimensions throughout the Solvency II Directive, which may be applied as the key element between the principle based Directive (Level 1) and the rules based Implementation Measures (Level 2):

- Under Level 1 we have the principle based general understanding of the PoP as “rule of common sense”, according to which an administrative authority may only act to exactly the extent that is needed to achieve its objectives, here: to perform in accordance with the Solvency II Directive, especially to achieve the targets. This does not implicitly say that the rules under level 2 (Implementing Measures) or guidelines under Level 3 could be circumvented. In cases, where the regulatory requirements and the real situation of an insurance company are incompatible – or irreconcilable or factually not relevant – the insurer / reinsurer may apply a similar (or ? adjusted) tool / formula which has to be checked and approved by the Supervisor (which will be less workload as to check a (partial) internal model).
- Under Level 2 the PoP needs to be applied with distinction for Pillar 1 and Pillar 2/3.
  - *Pillar 1 – Quantification via actuarial approach*
    The quantification of the various risk modules can be conducted easily in proportion when insurers with same business / activity per module but different size shall be compared – under ceteris paribus, the criteria “scale” will result in a correct relation of required capital.
    Due to different risk portfolios per module and size or scale it is factually impossible to achieve “correct and direct” proportionality between the supervised corporations (and cross border) without some flexibility for the actuary within the requirements of Solvency II.
    The structural risk sensitive requirements of Pillar 1 have to be followed by all insurers / reinsurers; the confidence level of 99,5% VaR over a one year time horizon must be respected.
  - *Pillar 2 and 3 – Qualitative targets via managerial skills and state-of-the-art structures*
    Reasonable and justified arguments are necessary to deviate from the pre-determined requirements still in compliance to achieve the Solvency II targets.
    Under proportionality considerations all operations and processes of the insurance undertaking have – risk sensitively – to be self assessed and prudently managed in a pre-described format and to disclose the financial situation at any time for more transparency to increase or stipulate market discipline.

General requirements for application of PoP

The measure to understand and to apply proportionality and to be in compliance with Solvency II includes the following preconditions:

1. Chosen tools and preferred activities are appropriate and adequate and in order to achieve the objective, which is intended; (French “raisonnable / approprié? “– German “angemessen”)
2. Chosen tools Pillar 1 and preferred activities Pillar 2 and 3 eventually deviating from a fixed rule are suited for, eligible, qualified and proper in a direct comparison with the rule; “they are necessary in order to achieve the objective, which is intended, i.e. there are no less severe means of achieving the objective” (French “adéquat” – German “geeignet”)
3. Chosen tools and preferred activities follow a reasonable demand; “they can reasonably be expected to be accepted” (French “tolerable” – German”zumutbar”)

TP.7.2. The principle of proportionality requires that the (re)insurance undertaking should be allowed to choose and apply a valuation method which is:

- suitable to achieve the objective of deriving a market-consistent valuation according to the Solvency II principles (compatible with the Solvency II valuation principles); but
- not more sophisticated than is needed in order to reach this objective (proportionate to the nature, scale and complexity of the risks).

TP.7.3. This does however not mean that an application of the principle of proportionality is restricted to small and medium-sized undertakings, nor does it mean that size is the only relevant factor when the principle is considered. Instead, the individual risk profile should be the primary guide in assessing the need to apply the proportionality principle.

Where mathematical tools are insufficient to identify and determine a fair quantification based on the pre-determined (or given) calibration under Pillar 1 additional information and reasons are requested.

TP.7.4. – delete –

Reason: when model errors can be quantified, than the conclusion is allowed that this requirement could imply that when companies want to apply simplifications they have to run in parallel the “full” approach to be able to benchmark both. That is duplicating work and is exactly the opposite of a “proportional” approach where the purpose is to avoid over-burdening companies.

TP.7.5. The term “simplified method” would refer to a situation where a specific valuation technique has been simplified, in line with the proportionality principle. In a loose sense, the term “simplified method” (or “simplification”) could also be used to refer to a valuation method which is considered to be simpler than a “commonly used” benchmark or reference method.

TP.7.6. Where approximation techniques are applied, these would typically be based on a fixed set of assumptions and would tend to be less complex than techniques which carry out explicit cash flow projections based on undertaking-specific data. Therefore, approximations may often be regarded as a specific kind of simplified methods (where the simplification is due to a lack of data). The use of expert judgement plays a key role in this context.

TP.7.7.

The PoP applies generally when a valuation methodology is chosen, which allows Insurance Undertakings to select a technique which is proportionate to the nature, scale and complexity of the underlying risks, allowing flexibility to the Insurance Undertaking in relation to the chosen valuation methodology, which has been diligently well documented and validated.

Reason: The Insurance Undertaking should have the option to use simplifications and it is their role to explain why it is appropriate and to convince their local regulator on a "common sense" approach, not on a "model error" approach.
This application of the PoP is valid for all insurers because the "mean" benchmark to calibrate the Pillar 1 formulas is not fully transparent and well documented.

TP.7.8. It would be appropriate for such an assessment to include the following three steps:

Step 1: Assess the nature, scale and complexity of underlying risks;

Step 2: Check whether valuation methodology is proportionate to risks as assessed in step 1

Reason: Isn't it correct to say that when the degree of the model error is quantifiable it should be integrated into the model? Or the underlying formulas should be adjusted?
Again quantifying model error or doing back testing is overly complex and time consuming (back testing against what by the way?). Either there is merit in developing a "full" model or it makes common sense to use simplified approaches but Insurance Undertakings should not be required to apply both to do benchmarking. That would be twice the work (assuming it is even feasible!).

TP.7.9. – delete –

TP.7.10. In this step, (re)insurance undertakings should assess the nature, scale and complexity of the risks underlying the insurance obligations. This is intended to provide a basis for checking the appropriateness of specific valuation methods carried out in step two and should serve as a guide to identify where simplified methods are likely to be appropriate.

TP.7.11. The scope of risks which should be included in the analysis will depend on the purpose and context of the assessment. For the purpose of calculating technical provisions, the assessment should include all risks which materially affect (directly or indirectly) the amount or timing of cash flows required to settle the insurance and reinsurance obligations arising from the insurance contracts in the portfolio to be valued. Whereas this will generally include all insured risks, it may also include others such as inflation.

Similar to the underwriting risks all other risks (credit, market, etc.) have to be assessed according to TP.7.8.

Nature, Scale and Complexity

TP.7.12.

Nature of risks means the type of risk i.e.:

- Underwriting risk in all lines of business. The same line may differ in various jurisdictions e.g. Third Party Liability in US, France, Egypt or Philippines;

- Market risk - different asset classes in different countries are differently exposed.

- *add more specified risks.*

Scale is the "easiest" criteria in the quantification process, because the size of risks are quantifiable, based on the experience of all the specialists in the various functions of the Insurance Undertakings. This data basis is "correct" – either linked to or as a consequence of a conservative or an aggressive policy of the undertaking. Macro economic factors such as inflation rates (or scenarios), development of interest etc. have to be documented, validated and, where necessary, discussed and agreed with the local regulator. A single distinction between "small" and "large" risks does not reflect the need to use data collections, past experience, worst case scenarios and future "change of risk" considerations.

Complexity has to be distinguished from "nature of risk". Complexity is the result of the quantification and interdependence of "nature" of risk types and "scale". Insurance undertakings run all types of risks (nature):-

- They can be specialist, mono-liners, niche-minded, Captives, mutuals or composites;

- Their activity can be local, regional, national or multinational.

- The volume of underwriting and their risk appetite varies based on their capital (and / or balance sheet).

- Their influence on a market-participant is either minor (or zero) or, on a worldwide scale of financial asset managers / investors important.

In the best interest of all participants under Solvency II, it may be necessary to recognize that the huge diversity in the Insurance Market is a result of the above (incomplete) description of their varied activities, which leads to a broad differentiation of complexity per insurance undertaking.

TP.7.13.

In mathematical terms, *... -needs new explanation... -*

Reason: The link between "complexity" or "nature" of single risks proposed by CEIOPS does not reflect the situation in the market and is obviously not aligned with the "rule of common sense", which is one of the fundamental principles of the jurisprudence developed by the European Court of Justice when it comes to an interpretation of the PoP. The link between complexity and nature is suppressing and undermining the need for evidence of clear

structures of a partial / internal model which discloses in figures and in a transparent format the “real” risk sensitive profile of an insurance undertaking.

TP.7.14. –TP.7.23.

needs new explanation, if at all!

Reason: The characteristics under TP.7.13.are not in a logical order which is understandable in view of the huge number of facets to each and every one of the risks.. A list of different “natures” of risk types would also be huge; hence not described. For example, the sensitivity of the risks in an insurance group will differ due to the different environments per country.

“One size fits all!” is not a reasonable and justifiable approach.

Still TP.7.12.

All Insurance Undertakings – as requested under TP.7.8 Step 1 – will assess Nature, Scale and Complexity as follows:

Proposed Approach

(a) Distinguish and describe the various natures of all types of risk,

(b) Quantify the different risks by assigning the various data bases (past, future, scenarios) to the individual risk, and then

(c) Determine and quantify the complexity of an Insurance Undertaking based on the interdependence of the various risk types, the use of mitigation / hedges, the diversification effects and so on.

The three assessment elements and the overall assessment

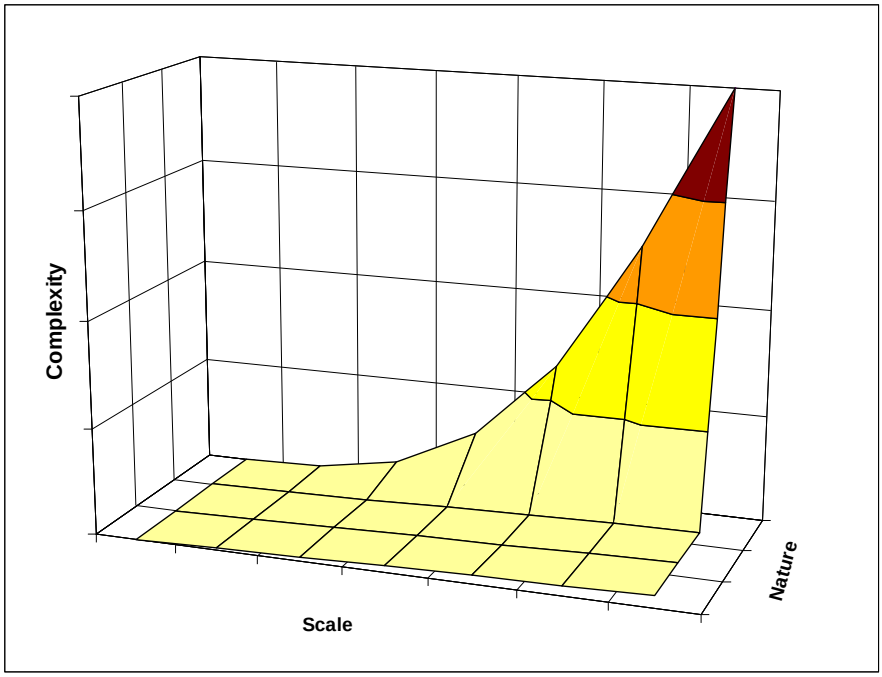
TP.7.24.

Pillar 1 formulas, as the initial component with a clear structure as a basis, using nature (risk types) and scale for the first step of quantification.

Complexity is a function of nature, scale and the interdependence of these (which can not be quantified in a perfect or complete formula).

TP.7.25.

To visualise the interaction of the three elements the graph illustrates:



The light yellow area represents a “simplified approach”; yellow - a “standard approach”; orange - would require “partial or full internal models” and brown - would clearly be the area where “full internal models” are required.

This highlights that very simple risks, even if very large, can be approached by simplified models and that more complex but immaterial risks can also be approached by simplified models as the effort of building a more accurate approach is not worth it in view of the objectives and proportionality. All others will progressively move towards more complex approaches.

The more risks and the higher the risk profile, the greater will be the complexity of an insurance company and the need for a higher SCR and MCR. Diversification effects can be taken into account in the aggregation of a huge variety of single risks as well as highly sophisticated risk mitigation instruments.

Highly sophisticated internal models will integrate qualitative criteria and tools (which come from Pillar 2 organisational, protection and security measures, key risk indicators, score card systems etc.) to provide arguments for the chosen risk appetite policy and as factors to adjust, correct and refine (improve) rather simple value-at-risk considerations.