Internal model change policy

Scope of the model change policy

When defining the scope of the policy, it is important for firms to consider whether it is sufficiently broad and appropriately flexible to be able to capture any changes which could have a material impact on the solvency capital requirement (SCR) or to enable the firm to meet the Solvency II internal model requirements. For example, the policy recognises that a particular change to a technical provision model may be within scope if that change leads to an impact on the internal model SCR.

There may also be situations where firms consider it appropriate to exclude something from the scope of the model change policy. In these circumstances it is good practice for firms to clearly justify these exclusions.

Firms should also be mindful of monitoring circumstances that might necessitate the need to change the scope of the policy.

Identification of model changes

It is important for firms to recognise that the need for model changes may arise from a wide range of potential sources. For example, model changes may be instigated through a firm's model development plans, validation activities, the Own Risk and Solvency Assessment (ORSA) or evolving use of the model. In addition, changes in a firm's own risk profile and factors external to the firm, such as the economic or commercial environment, may be potential triggers of model changes. A good model change policy would establish a robust process to identify, collate and manage all sources of potential model changes.

Classification of major changes

The PRA reminds firms that the EIOPA Guidelines on the use of internal models requires firms to develop and use a number of key quantitative and qualitative indicators for major changes. Firms' model change policies have generally fallen short of this Guideline.

In terms of quantitative indicators, the majority of firms define major changes based on a percentage change in the total SCR. An improved approach, adopted by some firms, specifies additional indicators at a more granular level, for example, indicators that relate to changes in the strength of the marginal risk distribution at certain percentiles or the amount of pre-diversified capital requirements for that risk.

It is important for the model change policy to include qualitative indicators for major changes. An example of a qualitative indicator is where a major change is triggered after a fundamental change in the methodology or a key expert judgement relating to a particular risk regardless of the impact that the change has on the SCR. Another potential qualitative major change indicator is if a proposed model change needs to be signed-off at, or above, a certain level of seniority within the firm. Firms may also wish to consider what indicators might be appropriate to use to determine whether a major change might be triggered through on-going model validation.

When developing major change indicators we would encourage firms to consider the appropriateness of having different indicators or threshold levels for different risks or components of the model. For example, it may be desirable to include specific change thresholds for certain elements of the model that are of key interest because they are highly material, highly judgemental or have known limitations.

Finally, it is important that firms justify their choice of major change indicators including why any thresholds chosen are at an appropriate level for the on-going supervision of the model. In this regard it can be helpful if firms provide examples of model changes (e.g. past model changes) that meet their major change indicators in order to demonstrate the appropriateness of thresholds chosen.

Combination of minor model changes

Firms have generally struggled to articulate how they would define the circumstances in which a combination of minor model changes would constitute a major model change. Better model change policies have specified at least the following:

- how the impact of minor changes will be accumulated together;
- the time period over which these changes will be accumulated; and
- the indicators or thresholds used to determine when such an accumulation becomes a major change.

A reasonable starting point for each of these may be as follows:

- to accumulate the absolute values of the impact of the minor changes together, unless it could be demonstrated why it would be reasonable to allow the impact of two minor changes to offset each other;
- to accumulate changes from the date of the latest approved internal model (as per the EIOPA Guidelines on the use of internal models). As part of this it is sensible for firms to treat the resetting of the starting point of the accumulation (of minor changes) as a major change, unless otherwise agreed with the PRA as part of the supervisory review process. Resetting the accumulation period may arise as a result of qualitative considerations, for example to ensure alignment with the governance of the model or with the model development and validation cycles; and
- to use indicators similar to those defined for single major changes, where considered appropriate.

A further consideration firms may wish to make is whether it is informative to group minor model changes together by risk or other common feature of the model.

Governance

The better model change policies clearly articulated the governance framework covering the internal process for identifying, approving and implementing the model changes. These included an articulation of how the model change policy fits in within the wider model governance, risk management and validation processes.

The PRA would generally expect the firm's senior management to be responsible for the internal sign-off of major model changes and to at least be made aware of minor changes where appropriate.

It is important that firms also ensure that there is a robust governance process to agree whether changes should be classified as either major or minor, especially in cases where the classification is borderline or subject to judgement.

Reporting of model changes to the PRA

In addition to submitting major changes for approval, firms are expected to provide a quarterly summary of minor model changes to the PRA. It may be helpful for the summary to group related changes together, for example, by risk area or function of the model.

Review of the model change policy

The PRA would encourage firms to review on a regular basis the effectiveness of the model change policy in order to ensure that the internal model continues to reflect the firm's risk profile and meet the Solvency II internal model tests and standards. Firms are also reminded that any change to the model change policy itself is subject to the PRA's approval.