

**Solvency Assessment and  
Management  
IMAP Independent Review Guidelines  
Version 2**



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# 1. Introduction

Under the Solvency Assessment and Management (SAM) regime, insurers may calculate their Solvency Capital Requirement (SCR) using a full or partial internal model provided this model is approved by the FSB. On 20 April 2011, the FSB issued the Internal Model Approval Process (IMAP) guide detailing the major components of the internal model approval process.

The IMAP Independent Review Guidelines document, issued at the same time as the Contents of Application (CoA) template, provides further insight into the FSB's review methodology and how it will be integrating this with the independent reviews for which the insurer is responsible. Additionally, guidance was also provided regarding the two types of independent review required, namely, the application pack review and the evidence reviews.

It was always intended that this guidance would be updated over time as the regulations and market practice evolve. Given the FSB's experience to date after having embarked on the internal model journey with various insurers, this guidance has now been revised. This second version of the IMAP Independent Review Guidelines now includes further clarification of both types of independent reviews, the requirements of the FSB, as well as an overview of the independent review process. A flow chart is provided in Annexure A to illustrate holistically how the independent reviews fit into the IMAP process.

The FSB's review methodology has been designed taking into account the FSB's resource constraints and the desire to keep internal model approval costs to a minimum, while ensuring a robust independent review process. The methodology follows a risk based approach, whereby the limited resources of the FSB are focussed on the most material risks.

The FSB's review methodology is applicable to solo insurance entities and insurance groups. Where a South African insurance group is part of an international supervisory college, a review will be undertaken in consultation with other relevant supervisors.

## 2. IMAP Review Methodology

The depth of all independent review work should take the principle of proportionality into account.

For an internal model to be approved by the FSB for the purposes of calculating the regulatory capital for an insurer under the SAM framework, the FSB must be satisfied that the model meets the tests and standards that are required. These tests and standards, once finalised, will be set out in the SAM primary and secondary legislation. Although the legislation for the SAM framework is still in the process of being developed, the latest thinking of the SAM structures has been put forward in various Position Papers, which have been subject to public consultation. The relevant documents for the internal model part of the SAM framework are set out below:

- Position Paper 35 (v4) – Use Test;
- Position Paper 43 (v2) – Internal Models: Validation;
- Position Paper 54 (v3) – Internal Models: Model Governance;
- Position Paper 55 (v2) – Internal Models: Statistical Quality and Calibration;
- Position Paper 56 (v2) – Internal Models: Documentation and Data Requirements;
- Position Paper 57 (v2) – Internal Models: Partial Internal Models.

Although there is the potential that the final legislation may be slightly different to the requirements set out in the Position Papers, the Position Papers provide a good guide to what may be expected in the legislation.

In order to demonstrate how they meet the tests and standards, insurers will be required to compile evidence that will be available for the FSB to review. A summary of all the evidence will be collated by the insurer in their Self-Assessment Template (SAT). The SAT will also indicate what information will form the contents of the application pack which will form the formal submission to the FSB at the end of the pre-application process.

In determining whether an internal model meets the tests and standards as set out in the legislation, the FSB will take into account:

- Validation processes in place by the insurer, as described in Position Paper 43;
- Independent reviews conducted, as described in this document;
- FSB reviews, as described in this document.

It is important to note the difference between the validation process for an internal model and the independent reviews. The validation process is an on-going process which entails qualitative and quantitative validation tools used by the insurer to gain comfort that the various components of the model are appropriate. The independent reviews are specific reviews, as described in this document, designed to provide comfort that the evidence and application pack received by the FSB meets certain standards.

Although the validation processes and independent reviews have different objectives, there may be overlap between these areas, and it is up to the insurer to organise their work in the most effective way.

In line with the risk-based approach taken by the FSB, the FSB will require the relevant validation processes and independent reviews to be conducted before the FSB performs their review.

The remainder of this document is set out as follows:

- Chapter 3 considers what independence means;
- Chapter 4 considers the independent reviews which are required;
- Chapter 5 considers the different type of reviews which will be conducted by the FSB.

### 3. Definition of Independence

Effective reviews require independence in order to present an objective challenge to the internal model.

Insurers will need to demonstrate that all reviewers are independent and that they are competent to perform the review. The onus to demonstrate that the reviewers are independent remains with the insurer. The FSB will not approve whether the reviewers are independent or not, however the FSB will retain the right to question the review should there be concerns about the insurer's judgment on this issue. The FSB will be available to discuss specific concerns that the insurer may have in relation to the independence of reviewers.

The definition of independence does not necessarily equate to being external to the insurer. Elements of the internal model reviews could be undertaken by internal resources, for example the Internal Audit function, provided that those resources meet the criteria of independence. Independence will be assessed relative to the criteria that the resource must be separate from the normal business operations and preparation of the annual financial statements of the insurer and must not have been significantly involved in the development and calibration of the internal model. All independent reviewers must possess the right level of competence.

Determining the right level of independence will also need to take proportionality into account. When deciding who will perform a review, the nature, scale and complexity of the risks faced by the insurer should be considered as well as its internal organisation and governance system. The right balance must be struck between any potential conflict of interest that might arise in the course of the reviews undertaken on the one hand, and a disproportionate level of segregation of duties on the other hand.

## 4. Independent Review Guidelines

Independent reviews are required for the application pack prior to submission as well as for every piece of evidence set out by the insurer in their SAT. Guidelines for both types of reviews are provided below. In addition, a flow chart that illustrates how both types of reviews fit into the overall IMAP process is given in Annexure A.

### Application pack review guidelines

1. The application pack should be independently reviewed to ascertain whether, in the independent reviewer's opinion, the application pack is complete and meets the assessment criteria specified in point 3 below. An insurer may only submit its application pack if a "passing grade" is given by the independent reviewer.
2. A detailed review of the evidence is not required, as a detailed review of the evidence will be conducted in the evidence reviews, as set out later in this section of the document.
3. Assessment criteria:

General assessment criteria:

- Every question from chapter A – N has been answered.
- The final version of the SAT Word Form has been included within the pack.

Specific assessment criteria per question:

- **Coverage:** All elements of the question have been adequately addressed.
- **Evidence relevance:** The evidence provided is relevant to the question.
- **Volume and detail of evidence:** The volume of evidence and the detail provided is appropriate given the materiality of the question to the insurer's risk profile and the scope of the internal model.
- **Balance of evidence:** The split between the evidence provided within the narrative (including the "in full" and "executive summary" evidence) versus that provided as supporting evidence is appropriate given the general principle to include the majority of evidence as supporting evidence (i.e. around 70%).
- **Quality of evidence:** The style and structure of all documentation (including the narrative) allows for easy reading (This part of the assessment is performed at a high-level by checking a sample of the supporting evidence and a high-level read through of the narrative).

4. Application pack review process

Upon submission of the initial SAT<sup>1</sup>, the independent reviewer must confirm that every question has been answered and that the evidence provided, or the evidence

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<sup>1</sup> An initial SAT is submitted during the 4 month review planning stage, with the completed final SAT being submitted in the formal application stage following all of the evidence reviews.

that will be provided in future, at least meets the above *coverage* and *evidence relevance* criteria.

Upon completion of the internal model pre-application review period, the application pack submitted (including a completed final SAT<sup>2</sup>) must contain an executive summary of the application pack review report. Details on the content of the application pack review report are as follows:

- For each question, the reviewer should assess the evidence provided against the above specific assessment criteria, and record his/her comments. A score (described below) should be awarded for each chapter A – N based on the comments per question related to that chapter.
- The reviewer would then form his/her opinion as to whether the application pack is complete and meets the above general assessment criteria. The reviewer would then need to determine whether the application pack meets a passing grade (see section 6 below for determining a passing grade).
- A review report containing the above information should be provided to the insurer (if an external resource was used).
- An executive summary of the review report (with the full report available as supporting evidence) should be included within Annexure 1 of the application pack.
- In situations where more than one person is used for the application pack review, the application pack review report (and executive summary) must be signed off by one independent reviewer taking into account the work done by the other reviewers.

## 5. Scoring

A score, between 1 and 4, should be awarded for each chapter using the following table as reference:

<b>Score</b>	
<b>1</b>	Unacceptable evidence provided
<b>2</b>	Evidence is marginally acceptable, but improvements are required before the submission of the application pack can be recommended
<b>3</b>	Evidence is marginally acceptable, with only minor improvements needed. This would not necessarily need to delay the submission of the application.
<b>4</b>	Acceptable evidence provided

## 6. Passing grade

In order to receive a passing grade, all chapters would need to receive a score of 3 or 4. A maximum of four 3's is allowed. To clarify, a failing grade would be given if:

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<sup>2</sup> The completed final SAT may only be submitted following the evidence reviews (both by the independent reviewer and the FSB) and once confirmation on submission is provided by the FSB. The completed final SAT must be aligned to the FSB's required amendments to the model/processes, as identified during the evidence reviews.

- A score of 1 or 2 is awarded for any chapter (even if the insurer scored 4 for all other chapters).
- A score of 3 is awarded for five or more of the chapters.

If a passing grade is not achieved, the independent reviewer would need to re-assess the affected chapters once the insurer has addressed the weaknesses identified. This process would be repeated until a passing grade is achieved.

If the insurer makes changes to the application pack subsequent to receiving a passing grade, for example to address the recommendations made where a score of 3 was given, the independent reviewer does not need to update his/her report. The insurer should include a summary of the changes made in Annexure 1.

#### 7. Who can perform the review?

The review should ideally be performed by one individual/group of individuals. Depending on the specific circumstances of the insurer, this review can either be done by internal or external resources. An insurer is permitted to use internal resources provided they can meet the independence standards (as described in Chapter 3).

8. After submission of the application pack to the FSB, the FSB may require the insurer to make amendments to the internal model (which includes all elements of the internal model and not just the calculation kernel). If the changes required are so material that the application is rejected or the insurer withdraws its application, the application pack will need to be reviewed again prior to resubmission.

#### Evidence review guidelines

1. Any evidence item provided to the FSB should be independently reviewed. These independent evidence review reports should form part of the evidence provided to the FSB.
2. In terms of process, after the initial SAT is submitted the internal model review plan will be agreed with the FSB. During this stage, the FSB will agree when they will conduct their reviews of the various pieces of evidence. The FSB review of evidence will only be done once the evidence produced and has been independently reviewed. The evidence reviews therefore do not need to be completed before the initial SAT is submitted. However, by the time the FSB reviews a specific piece of evidence, it is expected that the independent evidence review must have already been completed.
3. In order to place reliance on these independent reviews, the FSB needs to ensure that at a minimum, the following guidelines are followed:
  - Independent evidence reviews are not necessarily expected to be carried out by one individual/group of individuals. The Internal Audit function, for example, may be able to perform the review of the governance processes. External resources may be needed to review the more technical elements of the internal model (unless independent resources exist within the insurance company with the necessary skill set). The important criterion is whether the individual performing the review of a particular element of the internal model meets the independence standards described in Chapter 3 and has the necessary competencies to do so.

- All evidence provided for a question will need to have been independently reviewed prior to submission of the application pack. This will include people evidence where the understanding of the key individual is required to demonstrate compliance (such as Board understanding). Each independent review will also need to be sufficiently recent so that the conclusions reached in the evidence review report remains valid.
- The above review requirement does not mean that each piece of evidence should be read/reviewed in its entirety. Depending on the type of evidence, a sample may be sufficient. The depth of review should enable the reviewer to ascertain its quality and whether the evidence is aligned to the required internal model standards as defined in the primary and secondary legislation<sup>3</sup>. The principle of proportionality should also apply with more focus given to areas of material risk (or areas of greater complexity).
- All evidence reviews will need to take place during the IMAP pre-application process. Insurers are encouraged to have an independent review plan based on when each evidence item is expected to be ready for review. Evidence items do not need to be reviewed immediately following completion. The insurer is free to set a review plan that fits in with its validation processes (as long as all evidence reviews are completed prior to the submission of the application pack). The independent review plan should also therefore be in place before the submission of the SAT, so that the plan can be agreed with the FSB.

#### 4. Evidence review documentation

Before the FSB reviews a piece of evidence, an evidence review report dealing with the specific piece of evidence must be submitted. As a minimum, the following must be included in the evidence review report:

- A description of the item of evidence being reviewed;
- The date(s) at which the evidence was reviewed;
- A description of how the evidence is aligned to the required internal model standards mentioned above;
- A description of the various checks performed on the evidence;
- Details of any concerns, regardless of the required internal model standards which the reviewer may have on the evidence or on the internal model in general;
- Particulars of the independent reviewer, including an explanation of how the independence criterion is being met and details on the skills/expertise of the reviewer;
- Sign-off by the independent reviewer.

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<sup>3</sup> As the primary and secondary legislation are currently being drafted, independent reviewers should in the interim use the standards resulting from the various internal model Position Papers as described in Section 2.

## 5. The FSB Review Approaches

The FSB will not review any components of the internal model until such time as that component of the internal model has been independently reviewed.

The FSB will use three internal model review approaches, namely:

- Standard Review;
- Extended Review; or
- Intensive Review.

The three approaches refer to the depth to which the FSB will review the elements of the internal model (and will determine the level of fee charged for the review).

As the name suggests, a Standard Review approach will be used to review the majority of each insurer's internal model. This will entail reading the material submitted to the FSB and the independent evidence review reports reviewing a sample of the supporting evidence and meeting with key individuals within the insurance company.

An Extended Review will entail a more detailed assessment of the evidence being produced. The FSB expects to perform an Extended Review of some elements of every insurer's internal model. Materiality and the complexity of the risk or modelling approach are key determinants of where this type of review may be necessary.

If the FSB is still unable to formulate a view for a particular element of the internal model, an Intensive Review is required. An Intensive Review will involve the FSB thoroughly reviewing all of the relevant evidence. Additional information may be requested if necessary. The FSB does not expect to need to perform an Intensive Review for the majority of insurers. An Intensive Review will be reserved for the most complex and material elements of an insurer's model or where there are potential risks, for example risks to systemic stability from the use of an inappropriate internal model.

The FSB will take the insurer's independent review work into account wherever possible to enable it to perform a Standard Review. However, where a Standard Review is not in line with the risk based approach of the FSB or is deemed insufficient to enable the FSB to make a judgement, a more in-depth review will be required (either an Extended Review or an Intensive Review, as described above). The assessment performed by the FSB as to whether the insurer's validation policy and processes meet the regulatory standard for internal model approval is a separate issue but will have an influence on the extent of the level of reviews required.

Findings from a Standard Review conducted by the FSB may also result in the need to conduct a more in-depth review.

The particular reviews which will be required for each insurer will be dependent on the scope of the model and the nature of the risks faced by the insurer. However, the FSB will consider the following main review areas:

### Reviews by risk category:

- Market risk;
- Life underwriting risk;
- Non-life underwriting risk;

- Operational risk;
- Aggregation of risks.

Reviews not specific to risk category:

- Use Test and integration in risk management;
- Governance of internal model;
- Documentation;
- Validation;
- Data.

In agreeing a workplan with the insurer, the FSB will adapt the above reviews to meet the specific review requirements of the insurer. The reviews will be conducted by a combination of different departments within the FSB to utilise the skills that are best placed to conduct the reviews. However, there will be one individual who will be appointed as a lead reviewer for each insurer in the IMAP process to ensure that all the reviews are co-ordinated.

Where the FSB considers that it does not have the necessary skills or resources to conduct a specific review, the FSB may make use of external experts to conduct all or parts of the review.

# Annexure A: IMAP Flow Chart

