

IVASS REGULATION NO. 12 OF 22 DECEMBER 2015

REGULATION CONCERNING THE USE OF INTERNAL MODELS IN DETERMINING THE SOLVENCY CAPITAL REQUIREMENT AS REFERRED TO IN ARTICLES 45-BIS, 46-BIS, 207-OCTIES AND 216-TER OF LEGISLATIVE DECREE NO. 209 OF 7 SEPTEMBER 2005 - CODE OF PRIVATE INSURANCE RESULTING FROM THE NATIONAL IMPLEMENTATION OF THE EIOPA GUIDELINES ON THE FINANCIAL REQUIREMENTS OF THE SOLVENCY II REGIME (1ST PILLAR REQUIREMENTS).

INSTITUTE FOR THE SUPERVISION OF INSURANCE

HAVING REGARD to Law No. 576 of 12 August 1982, on the reform of insurance supervision and the establishment of ISVAP;

HAVING REGARD to Article 13 of Decree Law No. 95 of 6 July 2012, converted into Law No. 135 of 7 August 2012, concerning urgent measures for the review of public spending with unchanged services for citizens and establishing IVASS;

HAVING REGARD to Legislative Decree No. 209 of 7 September 2005, introducing the Code of Private Insurance, as amended by Legislative Decree No. 74 of 12 May 2015, implementing Directive 2009/138/EC on the taking-up and pursuit of the business of insurance and reinsurance and, in particular, Articles 45-bis, 45-ter, Articles 46-bis to 46-quinquiesdecies, 206-bis, 207-octies, 216-ter, 216-quinquies and 216-sexies of the Code;

HAVING REGARD to the Commission Delegated Regulation (EU) 2015/35 of 10 October 2014 supplementing Directive No. 2009/138/EC on the taking-up and pursuit of the business of insurance and reinsurance and, in particular, Title I, Chapter VI, Sections 1-9 and Title II, Chapter II, Sections 1-2;

HAVING REGARD to Commission Implementing Regulation (EU) 2015/460 of 19 March 2015, laying down implementing technical standards concerning the approval of an internal model in accordance with Directive 2009/138/EC of the European Parliament and of the Council;

HAVING REGARD to Commission Implementing Regulation (EU) 2015/461 of 19 March 2015, laying down implementing technical standards with regard to the process to reach a joint decision on the application to use a group internal model in accordance with Directive 2009/138/EC of the European Parliament and of the Council

HAVING REGARD to the Guidelines issued by EIOPA on the use of internal models;

HAVING REGARD to IVASS Regulation No. 3 of 5 November 2013 on the implementation of the provisions of Article 23 of Law No. 262 of 28 December 2005, concerning the procedures for the adoption of regulations and general acts of IVASS;

has adopted the following

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TITLE I GENERAL PROVISIONS

Article 1 (Legal sources)

1. This Regulation has been adopted in accordance with Articles 45-bis, paragraph 2, 191, paragraph 1, letter b), number 2 and letter s), and 216-ter, paragraph 1 of Legislative Decree No. 209 of 7 September 2005 as amended by Legislative Decree No. 74 of 12 May 2015.

Article 2 (Definitions)

1. For the purpose of this Regulation, the applicable definitions are those laid down by Legislative Decree No. 209 of 7 September 2005 and by Commission Delegated Regulation (EU) 2015/35. In addition, the following definitions shall apply:
 - a) "Code" – Legislative Decree No. 209 of 7 September 2005, as amended by Legislative Decree No. 74 of 12 May 2015;
 - b) "Delegated Acts" – the Commission Delegated Regulation (EU) 2015/35 of 10 October 2014 supplementing Directive No. 2009/138/EC on the taking-up and pursuit of the business of insurance and reinsurance;
 - c) "Regulation EU 2015/460" – Commission Implementing Regulation (EU) 2015/460 of 19 March 2015, laying down implementing technical standards concerning the approval of an internal model in accordance with Directive 2009/138/EC of the European Parliament and of the Council;
 - d) "Regulation EU 2015/461" – Commission Implementing Regulation (EU) 2015/461 19 March 2015, laying down implementing technical standards with regard to the process to reach a joint decision on the application to use a group internal model in accordance with Directive 2009/138/EC of the European Parliament and of the Council;
 - e) "Expert judgement" – the judgement enacted in compliance with Article 2 of the delegated acts;
 - f) "Ultimate Italian parent company" – the ultimate Italian parent company as referred to in Article 210, paragraph 2, of the Code;

- g) “Group internal model” – understood as both an internal model to be used for the calculation only of the consolidated group Solvency Capital Requirement as referred to in Article 216 of the Code, and as an internal model to be used for the calculation of the consolidated group Solvency Capital Requirement and the Solvency Capital Requirement of at least one undertaking included in the scope of this group internal model (group internal model pursuant to Article 207-octies of the Code);
- h) “Applicant pursuant to Article 207-octies” – ultimate Italian parent company in accordance with Article 210, paragraph 2, of the Code, and its subsidiaries or jointly the related undertakings or subsidiaries of an insurance holding undertaking, as the ultimate Italian parent company in accordance with Article 210, paragraph 2, of the Code, that have submitted an application for authorisation to calculate the consolidated group Solvency Capital Requirement and the Solvency Capital Requirement of insurance and reinsurance undertakings belonging to the group on the basis of an internal model;
- i) “Richness of the probability distribution” – this concept is determined mainly in two dimensions: the undertaking’s extent of knowledge about the risk profile as reflected in the set of events underlying the probability distribution forecast and the capability of the calculation method chosen to transform this information into a distribution of monetary values that relate to changes in basic own funds. The concept of richness should not be reduced to the level of detail of the representation of the probability distribution forecast because even a forecast in form of a continuous function might be of low richness;
- l) “Reference risk measure” – should be understood as the Value-at-Risk of the basic own funds subject to a confidence level of 99.5% over a one-year period as set out in Article 45-ter, paragraph 4 of the Code;
- m) “Analytical closed formulae” – should be understood as direct mathematical formulae that link the risk measure chosen by the undertaking to the reference measure as defined above;
- n) “t=0” – should be understood as the date on which the Solvency Capital Requirement computation is made by the undertaking according to its internal model;
- o) “t=1” – should be understood as one year after the date on which the Solvency Capital Requirement computation is made by the undertaking according to its internal model.

Article 3
(Scope)

1. This Regulation applies to insurance and reinsurance undertakings whose head offices are in the territory of the Republic of Italy and to the branches of insurance and reinsurance undertakings whose head offices are in a third Country and to the ultimate Italian parent companies.

TITLE II

INTERNAL MODEL AUTHORISATION AND CHANGES

Article 4
(Application for the use of an internal model)

1. The undertaking, in accordance with Article 2, paragraph 3 of Regulation EU 2015/460, annexes to the application for authorisation to use the internal model all documents necessary to demonstrate that the internal model meets the requirements as referred to in Title III, Chapter IV-bis, Section III of the Code and the Delegated Acts.

Article 5

(Policy for changing the full and partial internal models)

1. The policy for changing internal models as referred to in Article 46-quater of the Code shall take into account all sources of changes that may have an impact on the Solvency Capital Requirement, and in particular, the changes that affect:
 - a) the undertaking's corporate governance system;
 - b) the undertaking's compliance with the requirements to use the internal model;
 - c) the appropriateness of the technical specifications of the undertaking's internal model;
 - d) the undertaking's risk profile.
2. The policy for changing the model as referred to in paragraph 1 shall:
 - a) specify when a change to the internal model shall be considered as major or minor and when a combination of minor changes shall be considered a major change;
 - b) establishes the governance requirements associated with changes to the internal model, including those concerning the approval by the administrative body and the internal hierarchy, internal communication, documentation and validation of changes.
3. The inclusion of new elements in the internal model, such as additional risks or business units, is subject to IVASS authorisation in accordance with the procedure described in Article 7 of Regulation EU 2015/460.
4. The updating of internal model parameters must be regarded as a potential source of changes.

Article 6

(Definition of major change to the model)

1. To identify a major change to the internal model as referred to in Article 46-quater, paragraph 3, of the Code, the undertaking develops and uses a series of key qualitative and quantitative indicators, including the quantitative impact of a model change on the Solvency Capital Requirement or on individual components of the Solvency Capital Requirement.
2. The indicators developed pursuant to paragraph 1 take into account the specific characteristics of the undertaking and its internal model.

Article 7

(Periodic notification of changes)

1. The undertaking shall report minor changes to its internal model to IVASS, quarterly or more frequently where necessary, as referred to in Article 46-quater, paragraph 4, of the Code.

2. The notification as referred to in paragraph 1 is transmitted via a summary report that describes both the quantitative and qualitative impacts of each change and the approximate cumulative quantitative and qualitative impact of the combination of all changes on the approved internal model.

Article 8

(Evaluation of the combined effect of minor changes to the model)

1. To establish whether a combination of minor changes as referred to in Article 7, paragraph 1, should be considered as a major change, the undertaking uses the latest internal model approved as a reference.

TITLE III
REQUIREMENTS FOR AUTHORISATION OF THE GROUP INTERNAL MODEL

CHAPTER I
Use test pursuant to Article 46-novies of the Code

Article 9

(Improvement of the quality of the internal model)

1. The use of the internal model as part of the risk-management system and decision-making processes shall produce incentives for continuous quality improvement.

Article 10

(Use test and changes to the internal model)

1. In the process of improving the quality of the internal model, when a major change has been internally approved by the administrative body, the undertaking is able to demonstrate compliance with the internal model use test as referred to in Article 46-novies of the Code, taking into consideration:
 - a) the different components of the use test;
 - b) the different uses of its system of governance.
2. The undertaking shall identify in appropriate terms and justify the time lag between identifying that a change to the internal model is needed and the actual implementation of the change.
3. In the case of an application for a major change as referred to in Article 6, the undertaking shall put in place safeguards to ensure that during the approval process, the use of the internal model in its decision-making process is appropriate.

Article 11

(Understanding of the internal model)

1. The undertaking shall consider different approaches for ensuring the understanding of the internal model by the administrative body and by relevant users of the internal model for decision-making purposes.
2. In order to evaluate understanding of the internal model, IVASS may call:
 - a) the members of the administrative and supervisory body;

- (b) people who hold key positions in the governance and management system of the internal model.
3. IVASS may carry out a review of the documentation of the minutes of the board meetings or appropriate decision-making bodies in order to evaluate the undertaking's compliance with the use test requirements.

Article 12
(Support of decision-making)

1. The undertaking shall ensure and demonstrate, pursuant to Article 226 of the Delegated acts and Article 46-novies of the Code, that the internal model is used for decision-making.
2. When calculating the notional Solvency Capital Requirement for a ring-fenced fund, the undertaking shall comply with Article 81 of the Delegated Acts and explain how it ensures consistency between these results, as required by Article 223 of the Delegated Acts.

CHAPTER II
Statistical quality standards pursuant to Article 46-decies of the Code

Article 13
(Materiality in assumptions setting)

1. The undertaking shall set assumptions and use expert judgement, in particular taking into account the materiality of the impact of the use of assumptions with regard to the provisions of this Chapter.
2. The undertaking shall assess the materiality as referred to in paragraph 1 taking account of both quantitative and qualitative indicators and taking into consideration extreme losses conditions. The undertaking shall overall evaluate the indicators considered.

Article 14
(Governance of the assumptions setting process)

1. The setting of assumptions and, in particular, the use of expert judgement as referred to in Article 15 shall be documented and subject to a validation process pursuant to Articles 241 and 242 of the Delegated Acts and of Article 17 of this Regulation.
2. The assumptions shall be set and used consistently over time and across the undertaking and that they are fit for their intended use.
3. The undertaking shall approve the assumptions at levels of sufficient seniority according to their materiality, and provide for approval by the administrative body for most material assumptions.

Article 15
(Communication and uncertainty in assumptions setting)

1. Processes concerning the identification of assumptions and, in particular, the use of expert judgement for the choice of assumptions, are aimed at reducing the risk of misunderstanding or miscommunication between the various actors in the process.
2. The undertaking shall establish a formal and documented feedback process between the providers and users of material expert judgement and of the resulting assumptions.
3. The undertaking shall make any uncertainty of the assumptions transparent as well as the associated variation in final results.

Article 16
(Documentation of assumptions setting)

1. The undertaking shall document the assumption setting process and, in particular, the use of expert judgement, in such a manner that the process is transparent.
2. The undertaking shall include in the documentation the resulting assumptions and their materiality, the experts involved in the activity, the intended use and the period of validity.
3. The undertaking shall report the reasons for the choices made, including those attributable to the information basis used, with the level of detail necessary to make transparent the assumptions, process and decision-making criteria used for the selection of the assumptions and disregarding other alternatives.
4. The undertaking shall make sure that users of material assumptions receive clear and comprehensive written information about those assumptions.

Article 17
(Validation of assumptions setting)

1. The undertaking shall validate the process for choosing assumptions and using expert judgement.
2. For the purposes of validation as referred to in paragraph 1, the undertaking shall:
 - a) ensure that the process and the tools for validating the assumptions and in particular the use of expert judgement are documented;
 - b) track the changes of material assumptions in response to new information and analysis, and explain those changes as well as deviations of realizations from material assumptions;
 - c) use, where feasible and appropriate, validation tools such as stress testing and sensitivity testing;
 - d) review the assumptions chosen, relying on independent internal or external expertise;
 - e) identify the circumstances in which the assumptions would be considered false.

Article 18
(Calculation steps subject to consistency evaluation)

1. The methods used to calculate the probability distribution forecast as referred to in Article 228 of the Delegated Acts and the methods used to evaluate assets and liabilities in the balance sheet for solvency purposes shall be mutually consistent.
2. With reference to paragraph 1, the undertaking shall, when relevant to model part under consideration, verify:
 - a) the consistency in the transition from the valuation of assets and liabilities in the balance sheet for solvency purposes to the internal model;
 - b) the consistency of the valuation of assets and liabilities in the internal model at the valuation date with the valuation of assets and liabilities in the balance sheet for solvency purposes;
 - c) the consistency of the projection of risk factors and their impact on the forecast monetary values with the assumptions on those risk factors used for the valuation of assets and liabilities in the balance sheet for solvency purposes;
 - d) the consistency of the re-valuation of assets and liabilities at the end of the period with the valuation of assets and liabilities in the balance sheet for solvency purposes.

Article 19
(Aspects of the consistency assessment)

1. The undertaking, when assessing consistency, shall take at least the following aspects into account:
 - a) the consistency of the actuarial and statistical techniques applied in the valuation of assets and liabilities in the balance sheet for solvency purposes, and in the calculation of the probability distribution forecast;
 - b) the consistency of data and parameters used as inputs for the respective calculations;
 - c) the consistency of the assumptions underlying the respective calculations, in particular the assumptions on contractual options and financial guarantees, on future management strategies and on expected future discretionary benefits.

Article 20
(Consistency assessment)

1. Consistency assessments on a quantitative basis shall be carried out periodically and in a proportionate manner.
2. In its consistency assessment referred to in paragraph 1, the undertaking shall:
 - a) identify and document any deviation between the calculation of the probability distribution forecast and the valuation of assets and liabilities in the balance sheet for solvency purposes;
 - b) evaluate the impact of the deviations, both in isolation and in combination;
 - c) ascertain that the deviations do not result in an inconsistency between the calculation of the probability distribution forecast and the valuation of assets and liabilities in the balance sheet for solvency purposes.

Article 21
(Knowledge of the risk profile)

1. To ensure that the set of events of the probability distribution forecast underlying the internal model is exhaustive, the undertaking shall put in place processes that enable it to maintain sufficient and current knowledge of its risk profile.

2. For the purpose as referred to in paragraph 1, the undertaking shall work, in particular, to maintain an updated knowledge of risk factors and other factors that explain the behaviour of the variable underlying the probability distribution forecast.

Article 22

(Probability distribution forecast richness)

1. The undertaking shall assess the appropriateness of the actuarial and statistical techniques used to calculate the probability distribution forecast as referred to in Article 229 of the Delegated Acts, ensuring that these techniques are capable of developing knowledge of the risk profile as an important criterion..
2. The undertaking chooses the techniques that generate a probability distribution forecast rich enough to capture all relevant characteristics of its risk profile as referred to in Article 229, letter e) of the Delegated Acts and to support the decision-making process as referred to in Article 226 of the Delegated Acts.
3. The undertaking, in accordance with Article 229, letter g) of the Delegated Acts and as part of this methodological assessment as referred to in paragraphs 1 and 2, shall assess the reliability of estimates of adverse quantiles resulting from the probability distribution forecast.

Article 23

(Probability distribution forecast enrichment)

1. The undertaking shall ensure that the effort to generate a rich probability distribution forecast does not impair the reliability of the estimate of the adverse quantiles.
2. The undertaking shall avoid that the probability distribution is enriched unjustifiably and in a way that does not reflect the original knowledge of the risk profile.
3. The methodology used to enrich the probability distribution shall comply with the statistical quality standards concerning the methods, assumptions and data as referred to in Articles 229, 230 and 231 of the Delegated Acts. If such techniques involve the use of expert judgement, the undertaking shall apply the relevant provisions of this Regulation on assumptions setting and expert judgement.

CHAPTER III

Calibration standards pursuant to Article 46-undecies of the Code

Article 24

(Knowledge of approximations under extreme loss conditions)

1. When an undertaking uses approximations instead of using directly the reference risk measure, the undertaking shall test and verify the reliability of the output of these approximations over time and under extreme loss conditions, in accordance with its risk profile.
2. When the undertaking intends to use analytical closed formulae to recalibrate its Solvency Capital Requirement from the internal risk measure to the reference measure, it shall demonstrate that the assumptions underlying the formulae are realistic and are also valid under extreme loss conditions.

Article 25
(Use of another underlying variable)

1. The use, for the calculation of the Solvency Capital Requirement, of the variation in an underlying variable other than the basic own funds is subject to the company's ability to:
 - a) reconcile the difference between the basic own funds and the underlying variable at $t=0$;
 - b) understand the difference between the basic own funds and the underlying variable in any situation up to and including $t=1$, especially under extreme loss conditions, in accordance with the undertaking risk profile.

Article 26
(Management actions if using a time period longer than one year)

1. If the undertaking chooses in its internal model a time period longer than one year, it shall take into account management actions in the context of the Solvency Capital Requirement calculation, and shall ensure that such management actions have effects on the balance sheet for solvency purposes between $t=0$ and $t=1$.

CHAPTER IV
Profit and loss attribution pursuant to Article 46-duodecies of the Code

Article 27
(Profit and loss attribution)

1. For the purpose of profit and loss attribution as referred to in Article 46-duodecies of the Code, the undertaking shall consider profits and losses as changes over the relevant period, concerning:
 - a) basic own funds; or
 - b) other monetary amounts used in the internal model to determine changes in basic own funds, such as the actual change in economic capital resources.
2. The undertaking shall attribute profits and losses:
 - a) excluding movements attributable to the raising of additional own funds, the repayment or redemption of those funds and the distribution of own funds;
 - b) in the event of use of a variable different from the basic own funds in its internal model, using this variable.
3. The undertaking shall identify through the profit and loss attribution the relationship between changes in the risk factors and the development of the variable underlying the probability distribution forecast.

CHAPTER V
Model validation standard pursuant to Article 46-terdecies of the Code

Article 28

(Validation policy and validation report)

1. The undertaking shall establish, implement and keep up to date a validation policy for the internal model, drawn up in writing and approved by the administrative body, specifying at least:
 - a) the processes and methods to validate the internal model and their purposes;
 - b) the frequency of regular validation for each part of the internal model and the circumstances that give rise to additional validation;
 - c) the persons who are responsible for each validation task;
 - d) the procedure to be followed if the model validation process identifies problems with the reliability of the internal model and the decision-making process for addressing those concerns.
2. The undertaking shall document in a specific report the results of the validation process and the conclusions and consequences arising from the analysis of the validation. The report is distributed to the departments concerned.
3. The undertaking shall include in the validation report the information regarding the validation data sets as referred to in Article 37 and the sign-off from the main participants in the process.

Article 29

(Scope and purpose of the validation process)

1. The undertaking shall state the specific purpose of the validation for each part of the internal model, including as part of the scope of the validation both the qualitative and quantitative aspects of the internal model.
2. The validation process extends over the whole of the internal model and, in particular, analyses the appropriateness of the probability distribution to ensure that the level of regulatory capital will not be materially misstated .

Article 30

(Materiality)

1. When a materiality parameter is used for assessing the intensity of the validation activities for each part of an internal model, this materiality must itself be subject to validation.
2. When deciding the appropriate method of validation, the undertaking shall consider the materiality of the parts of the internal model not only in isolation but also in combination with the other parts of the model.
3. The undertaking shall consider sensitivity testing of the outputs as referred to in Article 46-terdecies, paragraph 4 of the Code, when determining materiality in the context of validation.

Article 31

(Quality of the validation process)

1. The undertaking shall know, document and indicate all the limitations of the validation process used, including those relating to individual parts of the internal model covered by the validation process.

2. When assessing the quality of the validation process, the undertaking shall specify the circumstances under which the validation must be considered ineffective.

Article 32
(Governance of the validation process)

1. The governance of the internal model validation process shall include appropriate procedures of communication and internal reporting of the results of the validation performed.
2. The undertaking shall pre-define the criteria for determining if and when it is necessary that the results, or part of the results, of the validation,, shall be submitted to the various levels of the hierarchy, bearing in mind the obligation to respect the independence of the validation process from the development and operation of the internal model.

Article 33
(Roles in the validation process)

1. If, under the validation process, specific tasks are assigned to units or resources not included in the risk management function, the undertaking shall ensure that this function meets its overall responsibility as referred to in Article 30, paragraph 2, letter e) of the Code and in Article 269, paragraph 2, letter a) of the Delegated Acts, including the responsibility of ensuring the completion of the various tasks within the validation process.
2. The undertaking shall formally explain the role of each party in the validation process.

Article 34
(Independence of the validation process)

1. The undertaking's risk management function, as referred to in Article 30, paragraph 2, point e) of the Code, provides an objective review of the internal model and ensures that the validation process is carried out independently from the development and operation of the model.
2. The risk management function of the undertaking ensures that the tasks relating to the validation process are defined and fulfilled in such a way as to ensure the independence of the validation process as referred to in Article 241, paragraph 2 of the Delegated Acts.
3. The tasks connected to the validation process are assigned taking into account the nature, scale and complexity of the risks faced by the undertaking, the function and the skills of people to be involved and the need to ensure the independence of the validation process.

Article 35
(Application of validation tools)

1. The undertaking shall identify an appropriate set of validation tools, besides those provided for in Article 242 of Delegated Acts, in order to ensure an effective validation process.

2. In particular, the undertaking chooses the validation tools taking into account at least the following aspects:
 - a) characteristics and limitations of the validation tools;
 - b) nature (validation tools being qualitative, quantitative or a combination of both);
 - c) knowledge required (understood as the level of knowledge required by the people performing the validation);
 - d) information required (potential restrictions on the amount or the type of information available for external as opposed to internal validation);
 - e) cycle of validation (validation tools suitable to cover every key assumption made in the different steps of the internal model, from development to implementation and operation).

3. In the validation report as referred to in Article 28, the undertaking shall report, with appropriate documentary support, the parts of the internal model validated by each of validation tools used and why the latter are appropriate for the specific purpose, describing at least:
 - a) the materiality of the part of the model to be validated;
 - b) the level at which the tool is applied to the aggregated results, starting from individual risks, modelling blocks, portfolios and business units;
 - c) the purpose of this validation task;
 - d) the expected outcome of the validation.

Article 36
(Stress tests and scenario analysis)

1. The undertaking shall use stress tests and scenario analysis as part of the validation of the internal model.
2. The stress tests and scenario analysis used shall include significant risks and are monitored over time.

Article 37
(Data sets)

1. The undertakings shall ensure that the selected data and expert judgement used in the validation process allow to effectively validate the internal model under a wide range of circumstances that have occurred in the past or could potentially occur in the future.

CHAPTER VI
Documentation standards as referred to in Article 46-quaterdecies of the Code

Article 38
(Documentation control procedures)

1. In order to ensure the on-going quality of the documentation in accordance with Article 243, paragraph 3 of the Delegated Acts, the undertaking shall have in place at least:
 - a) an effective control procedure for internal model documentation;
 - b) versions control procedures for internal model documentation;
 - c) a clear reference system for internal model documentation, which should be used in the documentation inventory as referred to in Article 244, letter a) of the Delegated Acts.

Article 39
(Documentation of methodologies)

1. The documentation produced by the undertaking, detailed enough to demonstrate an accurate understanding of the methodologies and techniques used in the internal model, shall include at least:
 - a) the underlying assumptions;
 - a) the applicability of these assumptions given the undertaking's risk profile;
 - c) potential shortcomings of the methodology or of the technique.
2. When documenting the theory, assumptions and mathematical and empirical basis underlying any methodology used in the internal model in accordance with Article 46-quaterdecies of the Code, the undertaking shall include, where available, the material steps of the development of the methodology, as well as information on other methodologies which were considered but not subsequently used.

Article 40
(Documentation relating to shortcomings of the internal model)

1. The documentation shall contain a general summary of the material shortcomings of the internal model, reported in a single document that includes at least the aspects mentioned in Article 245 of the Delegated Acts.

Article 41
(Appropriateness of documentation in relation to addressees)

1. The undertaking shall arrange the documentation relating to the internal model into different levels, commensurate with the different uses and addressees.

Article 42
(User manuals or process descriptions)

1. As part of the documentation of the internal model, the undertaking shall have in place guidance documents for operation of the internal model which should be sufficiently detailed to allow an independent knowledgeable third party to operate and run the internal model.

Article 43
(Output from the model for the use test)

1. As part of the documentation of the internal model, the undertaking shall support the outputs of the model that are relevant to meet the requirements of Article 46-novies of the Code.

Article 44
(Documentation of software and modelling platforms)

1. The documentation of the internal model shall contain information on the software, modelling platforms and hardware systems used in the internal model.
2. The undertaking shall provide, in the documentation as referred to in paragraph 1, sufficient information to assess and justify the use of software, modelling platforms and

hardware systems used in the internal model and to allow IVASS to assess their appropriateness.

TITLE IV

USE OF EXTERNAL MODELS AND DATA PURSUANT TO ARTICLE 46- QUINQUIESDECIES OF THE CODE

Article 45

(External models and data)

1. The undertaking using a model or data obtained from a third party shall comply with all the requirements for internal models set out in Title III, Chapter IV-bis, Section III of the Code and in the Delegated Acts.

Article 46

(External data)

1. The undertaking, given the nature of external data, shall ensure an adequate level of understanding of the specificities of external data used in the internal model, including any material transformation, rescaling, seasonality and any other processing inherent in the external data.
2. The undertaking shall ensure at least:
 - a) an understanding of the attributes and limitations or other peculiarities of the external data;
 - b) processes aimed at identifying missing external data and other limitations;
 - c) an understanding of the approximations and processing carried out for missing or unreliable external data;
 - d) processes to ensure the timely consistency checks, including comparisons with other relevant sources.

Article 47

(Understanding of the external model)

1. The undertaking shall ensure that all parties involved in the use of the external model have a sufficiently detailed understanding of the parts of the external model relevant to them, including assumptions, technical and operational aspects.
2. The undertaking shall give particular attention to the aspects of the external model that are most relevant to its risk profile.

Article 48

(Reviewing the choice of external model and data)

1. The undertaking shall periodically review its reasons for selecting a particular external model or set of external data.
2. The undertaking shall not be overly reliant on one provider and shall have in place plans to protect itself from any failures of the provider.

3. The undertaking shall take into account any updates to the external model or the data that allow the undertaking to better assess its risks.

Article 49

(Integration of external models into the internal model framework)

1. The approach for incorporating the external model into the internal model framework, including the relevant techniques, data, parameters, assumptions chosen by the undertaking and the external model outputs, shall be appropriate.

Article 50

(Validation in the context of external models and data)

1. The undertaking shall perform its own validation as referred to in Article 46-terdecies of the Code, with regard to the aspects of the external model relevant to its risk profile and to the process for integrating the external model and data into its own processes and internal model.
2. The undertaking shall assess the appropriateness of the choice made with regard to the characteristics or options available for the external model.
3. The undertaking, as part of the validation process, shall take into account appropriate information and, in particular, the analysis carried out by the vendor or other third parties.
4. When considering the information and analyses as referred to in paragraph 3, the undertaking shall at least ensure that:
 - a) the independence of the validation is not compromised;
 - b) there is consistency with the validation process set out by the undertaking and laid out clearly in the validation policy;
 - c) any implicit or explicit bias in the analysis performed by the vendor or other third party is taken into account.

Article 51

(Documentation in the context of external models and data)

1. The undertaking shall ensure that the documentation of external models and data complies with the provisions concerning the documentation standards as referred to in Article 46-*quaterdecies* of the Code.
2. The documentation shall deal with at least the following points:
 - a) the aspects of the external model and external data that are relevant for its risk profile;
 - b) the integration of the external model or external data into the undertaking's own processes and internal model;
 - c) the integration of data, in particular inputs, for the external model, or outputs from the external model, into its own processes and internal model;
 - d) the external data used in the internal model, its source and use.
3. The use of the documentation produced by the vendors or service providers shall not compromise the ability to meet the documentation standards as referred to in Article 46-*quaterdecies* of the Code.

Article 52

(Responsibility of the undertaking in the context of external models and data)

1. The undertaking shall remain responsible for discharging its obligations related to its internal model and for the role of the external model or data in the internal model.

Article 53

(Role of service providers when using external models and data)

1. The undertaking that chooses not to operate the external model directly shall define criteria and management requirements as part of an outsourcing agreement that includes any duties assigned to a service provider for carrying out tasks related to external data.
2. The agreement as referred to in paragraph 1 shall meet the requirements of Article 30-septies of the Code and Article 274 of the Delegated Acts.

TITLE V
GROUP INTERNAL MODELS

Article 54

(Documentation to be submitted in an application for the use of a group internal model as referred to in Article 207-octies of the Code)

1. In the case of an application to use a group internal model, the applicant, pursuant to Article 207-octies of the Code, shall include for each insurance and reinsurance subsidiary submitting an application for the use of a group internal model, the information specified in Article 2 of Regulation EU 2015/460 on the procedure for the approval of internal models, unless such information has already been conveyed to IVASS for the same purposes.
2. In the case as referred to in paragraph 1, the applicant pursuant to Article 207-octies shall explain, for each insurance and reinsurance subsidiary included in the application, to what extent the development, implementation and validation of the group internal model components necessary for the calculation of the Solvency Capital Requirement of the subsidiary are carried out by another entity of the group.

Article 55

(Extension of the scope of an application for the use of a group internal model)

1. When submitting an application for the use of a group internal model as referred to in Article 216-ter of the Code, in the context of information on the scope of the internal model as referred to in Article 343, paragraph 5 or Article 347, paragraph 6 of the Delegated Acts, the ultimate Italian parent undertaking shall clarify any future intention to extend the scope of the internal model in order to include, for the purpose of calculation of the consolidated group Solvency Capital Requirement, one or more subsidiaries included among those subject to group supervision but not included in the current scope of the internal model for the calculation of the consolidated group Solvency Capital Requirement.
2. The applicant pursuant to Article 207-octies of the Code, when submitting an application for the use of a group internal model as part of the set of information provided to justify the proposed scope of the model, shall clarify any future intention to

extend the group internal model to the calculation of the Solvency Capital Requirement of one or more subsidiaries not included in the scope of the current application.

Article 56

(Technical specifications in the case of an application for the use of a group internal model as referred to in Article 207-octies of the Code)

1. In case of an application for the use of a group internal model, the applicant pursuant to Article 207-octies of the Code shall explicitly indicate how the technical specifications of the group internal model differ, depending on whether the internal model is used for the calculation of the consolidated group Solvency Capital Requirement or for the calculation of the Solvency Capital Requirement of the subsidiaries. In particular, the applicant shall make specific reference to:
 - a) the treatment of intra-group transactions for the calculation of both the Solvency Capital Requirement of insurance and reinsurance subsidiaries and, where applicable, the consolidated group Solvency Capital Requirement;
 - b) the list of parameters within the internal model that may be set differently for various calculations performed with the group internal model, for the purposes of the calculation of the consolidated group Solvency Capital Requirement and the individual Solvency Capital Requirements;
 - c) the description of group specific risks relevant only in the consolidated group Solvency Capital Requirement calculation.

Article 57

(Extension of use and extension of the scope of group internal models as referred to in Article 207-octies of the Code).

1. The following extensions of the group internal model shall be submitted to IVASS by the applicant in accordance with Article 207-octies of the Code following the same procedure as for major changes to the internal model as referred to in Article 7 of Regulation EU 2015/460:
 - a) extension of use of the group internal model to the calculation of the individual Solvency Capital Requirement of a subsidiary undertaking that is currently included in the scope of the group internal model for the calculation of the consolidated group Solvency Capital Requirement but which is not using the group internal model for the calculation of its individual Solvency Capital Requirement;
 - b) extension to cover new elements at group level;
 - c) extension to cover new elements at the level of a subsidiary undertaking using the group internal model for the calculation of its Solvency Capital Requirement, including the extension related to elements already used at the level of the group or other subsidiary undertakings.

Article 58

(Use test specificities for group internal models as referred to in Article 207-octies of the Code).

1. The ultimate parent company and subsidiaries that submit an application to use the group internal model for the calculation of the individual Solvency Capital Requirement shall cooperate in order to align the design of the internal model to their business.

2. The governance of the internal model provides that each undertaking referred to in paragraph 1:
 - a) calculates its individual Solvency Capital Requirement with the frequency required by Article 45-quater of the Code and whenever needed in the decision-making process;
 - b) may propose changes to the group internal model, especially for components that are material to it or following a change in its risk profile and taking into account the environment in which the undertaking operates;
 - c) possesses an adequate understanding of the internal model for the parts of the internal model which cover the risks of that undertaking.
3. The insurance or reinsurance undertakings applying to use a group internal model to calculate their Solvency Capital Requirement shall ensure that the design of the internal model is aligned with their business and their risk management system, including the production of outputs, both at group level and at subsidiary level, that are granular enough to allow the group internal model to play an adequate role in their decision-making processes.

Article 59

(Policy for changing the model in the case of group internal models as referred to in Article 207-octies of the Code)

1. In the case of a group internal model in accordance with Article 207-octies of the Code, the ultimate parent company and the insurance and reinsurance subsidiaries applying to use a group internal model to calculate their individual Solvency Capital Requirement shall develop a single policy for changing the model.
2. The ultimate parent company and the insurance and reinsurance subsidiaries applying to use a group internal model to calculate their individual Solvency Capital Requirement shall ensure that the policy for changing the model includes a specification of major and minor changes with reference both to the group and to each of the insurance and reinsurance subsidiaries included in the application for the use of the group internal model.
3. The ultimate parent company and the insurance and reinsurance subsidiaries applying use a group internal model to calculate their individual Solvency Capital Requirement individually shall ensure that any change that is major for a subsidiary included in the application is classified as a major change within the policy as referred to in paragraph 1.

Article 60

(Validation for group internal models as referred to in Article 207-octies of the Code)

1. The ultimate parent company and the subsidiary undertakings included in the application to use the group internal model in accordance with Article 207-octies of the Code for the calculation of their Solvency Capital Requirement shall develop a single validation policy to cover the validation process both at group and individual level.
2. The ultimate parent company and the subsidiary undertakings shall define the validation process of the internal model in the context of the calculation of both the consolidated group Solvency Capital Requirement and the Solvency Capital

Requirement of the subsidiary undertakings included in the application to use a group internal model. This circumstance is clearly explained in the validation policy adopted for the group internal model.

TITLE VI FINAL PROVISIONS

Article 61 (Publication and entry into force)

1. This Regulation is published in the Official Journal of the Italian Republic and in the IVASS Bulletin and website.
2. This Regulation enters into force on 1st January 2016.

On behalf of the Joint Directorate
The Board member (pursuant to art. 9, paragraph 2 of the IVASS Statute)