

Directive 2009/138/EC of the European Parliament and of the Council  
of 25 November 2009 on the taking-up and pursuit of the business of  
Insurance and Reinsurance (Solvency II) (recast) (Text with EEA relevance)

TITLE I

**GENERAL RULES ON THE TAKING-UP AND PURSUIT OF  
DIRECT INSURANCE AND REINSURANCE ACTIVITIES**

CHAPTER VI

**Rules relating to the valuation of assets and liabilities, technical provisions, own funds,  
Solvency Capital Requirement, Minimum Capital Requirement and investment rules**

Section 4

**Solvency capital requirement**

Subsection 2

**Solvency capital requirement standard formula**

*Article 103*

**Structure of the standard formula**

The Solvency Capital Requirement calculated on the basis of the standard formula shall be the sum of the following items:

- (a) the Basic Solvency Capital Requirement, as laid down in Article 104;
- (b) the capital requirement for operational risk, as laid down in Article 107;
- (c) the adjustment for the loss-absorbing capacity of technical provisions and deferred taxes, as laid down in Article 108.

*Article 104*

**Design of the Basic Solvency Capital Requirement**

1 The Basic Solvency Capital Requirement shall comprise individual risk modules, which are aggregated in accordance with point (1) of Annex IV.

It shall consist of at least the following risk modules:

- a non-life underwriting risk;
- b life underwriting risk;
- c health underwriting risk;

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- d market risk;
- e counterparty default risk.

2 For the purposes of points (a), (b) and (c) of paragraph 1, insurance or reinsurance operations shall be allocated to the underwriting risk module that best reflects the technical nature of the underlying risks.

3 The correlation coefficients for the aggregation of the risk modules referred to in paragraph 1, as well as the calibration of the capital requirements for each risk module, shall result in an overall Solvency Capital Requirement which complies with the principles set out in Article 101.

4 Each of the risk modules referred to in paragraph 1 shall be calibrated using a Value-at-Risk measure, with a 99,5 % confidence level, over a one-year period.

Where appropriate, diversification effects shall be taken into account in the design of each risk module.

5 The same design and specifications for the risk modules shall be used for all insurance and reinsurance undertakings, both with respect to the Basic Solvency Capital Requirement and to any simplified calculations as laid down in Article 109.

6 With regard to risks arising from catastrophes, geographical specifications may, where appropriate, be used for the calculation of the life, non-life and health underwriting risk modules.

7 Subject to approval by the supervisory authorities, insurance and reinsurance undertakings may, within the design of the standard formula, replace a subset of its parameters by parameters specific to the undertaking concerned when calculating the life, non-life and health underwriting risk modules.

Such parameters shall be calibrated on the basis of the internal data of the undertaking concerned, or of data which is directly relevant for the operations of that undertaking using standardised methods.

When granting supervisory approval, supervisory authorities shall verify the completeness, accuracy and appropriateness of the data used.

#### *Article 105*

### **Calculation of the Basic Solvency Capital Requirement**

1 The Basic Solvency Capital Requirement shall be calculated in accordance with paragraphs 2 to 6.

2 The non-life underwriting risk module shall reflect the risk arising from non-life insurance obligations, in relation to the perils covered and the processes used in the conduct of business.

It shall take account of the uncertainty in the results of insurance and reinsurance undertakings related to the existing insurance and reinsurance obligations as well as to the new business expected to be written over the following 12 months.

It shall be calculated, in accordance with point (2) of Annex IV, as a combination of the capital requirements for at least the following sub-modules:

- a the risk of loss, or of adverse change in the value of insurance liabilities, resulting from fluctuations in the timing, frequency and severity of insured events, and in the timing and amount of claim settlements (non-life premium and reserve risk);

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- b the risk of loss, or of adverse change in the value of insurance liabilities, resulting from significant uncertainty of pricing and provisioning assumptions related to extreme or exceptional events (non-life catastrophe risk).

3 The life underwriting risk module shall reflect the risk arising from life insurance obligations, in relation to the perils covered and the processes used in the conduct of business.

It shall be calculated, in accordance with point (3) of Annex IV, as a combination of the capital requirements for at least the following sub-modules:

- a the risk of loss, or of adverse change in the value of insurance liabilities, resulting from changes in the level, trend, or volatility of mortality rates, where an increase in the mortality rate leads to an increase in the value of insurance liabilities (mortality risk);
- b the risk of loss, or of adverse change in the value of insurance liabilities, resulting from changes in the level, trend, or volatility of mortality rates, where a decrease in the mortality rate leads to an increase in the value of insurance liabilities (longevity risk);
- c the risk of loss, or of adverse change in the value of insurance liabilities, resulting from changes in the level, trend or volatility of disability, sickness and morbidity rates (disability – morbidity risk);
- d the risk of loss, or of adverse change in the value of insurance liabilities, resulting from changes in the level, trend, or volatility of the expenses incurred in servicing insurance or reinsurance contracts (life-expense risk);
- e the risk of loss, or of adverse change in the value of insurance liabilities, resulting from fluctuations in the level, trend, or volatility of the revision rates applied to annuities, due to changes in the legal environment or in the state of health of the person insured (revision risk);
- f the risk of loss, or of adverse change in the value of insurance liabilities, resulting from changes in the level or volatility of the rates of policy lapses, terminations, renewals and surrenders (lapse risk);
- g the risk of loss, or of adverse change in the value of insurance liabilities, resulting from the significant uncertainty of pricing and provisioning assumptions related to extreme or irregular events (life-catastrophe risk).

4 The health underwriting risk module shall reflect the risk arising from the underwriting of health insurance obligations, whether it is pursued on a similar technical basis to that of life insurance or not, following from both the perils covered and the processes used in the conduct of business.

It shall cover at least the following risks:

- a the risk of loss, or of adverse change in the value of insurance liabilities, resulting from changes in the level, trend, or volatility of the expenses incurred in servicing insurance or reinsurance contracts;
- b the risk of loss, or of adverse change in the value of insurance liabilities, resulting from fluctuations in the timing, frequency and severity of insured events, and in the timing and amount of claim settlements at the time of provisioning;
- c the risk of loss, or of adverse change in the value of insurance liabilities, resulting from the significant uncertainty of pricing and provisioning assumptions related to outbreaks of major epidemics, as well as the unusual accumulation of risks under such extreme circumstances.

5 The market risk module shall reflect the risk arising from the level or volatility of market prices of financial instruments which have an impact upon the value of the assets and liabilities of the undertaking. It shall properly reflect the structural mismatch between assets and liabilities, in particular with respect to the duration thereof.

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It shall be calculated, in accordance with point (4) of Annex IV, as a combination of the capital requirements for at least the following sub-modules:

- a the sensitivity of the values of assets, liabilities and financial instruments to changes in the term structure of interest rates, or in the volatility of interest rates (interest rate risk);
- b the sensitivity of the values of assets, liabilities and financial instruments to changes in the level or in the volatility of market prices of equities (equity risk);
- c the sensitivity of the values of assets, liabilities and financial instruments to changes in the level or in the volatility of market prices of real estate (property risk);
- d the sensitivity of the values of assets, liabilities and financial instruments to changes in the level or in the volatility of credit spreads over the risk-free interest rate term structure (spread risk);
- e the sensitivity of the values of assets, liabilities and financial instruments to changes in the level or in the volatility of currency exchange rates (currency risk);
- f additional risks to an insurance or reinsurance undertaking stemming either from lack of diversification in the asset portfolio or from large exposure to default risk by a single issuer of securities or a group of related issuers (market risk concentrations).

6 The counterparty default risk module shall reflect possible losses due to unexpected default, or deterioration in the credit standing, of the counterparties and debtors of insurance and reinsurance undertakings over the following 12 months. The counterparty default risk module shall cover risk-mitigating contracts, such as reinsurance arrangements, securitisations and derivatives, and receivables from intermediaries, as well as any other credit exposures which are not covered in the spread risk sub-module. It shall take appropriate account of collateral or other security held by or for the account of the insurance or reinsurance undertaking and the risks associated therewith.

For each counterparty, the counterparty default risk module shall take account of the overall counterparty risk exposure of the insurance or reinsurance undertaking concerned to that counterparty, irrespective of the legal form of its contractual obligations to that undertaking.

#### *Article 106*

##### **Calculation of the equity risk sub-module: symmetric adjustment mechanism**

1 The equity risk sub-module calculated in accordance with the standard formula shall include a symmetric adjustment to the equity capital charge applied to cover the risk arising from changes in the level of equity prices.

2 The symmetric adjustment made to the standard equity capital charge, calibrated in accordance with Article 104(4), covering the risk arising from changes in the level of equity prices shall be based on a function of the current level of an appropriate equity index and a weighted average level of that index. The weighted average shall be calculated over an appropriate period of time which shall be the same for all insurance and reinsurance undertakings.

3 The symmetric adjustment made to the standard equity capital charge covering the risk arising from changes in the level of equity prices shall not result in an equity capital charge being applied that is more than 10 percentage points lower or 10 percentage points higher than the standard equity capital charge.

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### *Article 107*

#### **Capital requirement for operational risk**

1 The capital requirement for operational risk shall reflect operational risks to the extent they are not already reflected in the risk modules referred to in Article 104. That requirement shall be calibrated in accordance with Article 101(3).

2 With respect to life insurance contracts where the investment risk is borne by the policy holders, the calculation of the capital requirement for operational risk shall take account of the amount of annual expenses incurred in respect of those insurance obligations.

3 With respect to insurance and reinsurance operations other than those referred to in paragraph 2, the calculation of the capital requirement for operational risk shall take account of the volume of those operations, in terms of earned premiums and technical provisions which are held in respect of those insurance and reinsurance obligations. In this case, the capital requirement for operational risks shall not exceed 30 % of the Basic Solvency Capital Requirement relating to those insurance and reinsurance operations.

### *Article 108*

#### **Adjustment for the loss-absorbing capacity of technical provisions and deferred taxes**

The adjustment referred to in Article 103(c) for the loss-absorbing capacity of technical provisions and deferred taxes shall reflect potential compensation of unexpected losses through a simultaneous decrease in technical provisions or deferred taxes or a combination of the two.

That adjustment shall take account of the risk mitigating effect provided by future discretionary benefits of insurance contracts, to the extent insurance and reinsurance undertakings can establish that a reduction in such benefits may be used to cover unexpected losses when they arise. The risk mitigating effect provided by future discretionary benefits shall be no higher than the sum of technical provisions and deferred taxes relating to those future discretionary benefits.

For the purpose of the second paragraph, the value of future discretionary benefits under adverse circumstances shall be compared to the value of such benefits under the underlying assumptions of the best-estimate calculation.

### *Article 109*

#### **Simplifications in the standard formula**

Insurance and reinsurance undertakings may use a simplified calculation for a specific sub-module or risk module where the nature, scale and complexity of the risks they face justifies it and where it would be disproportionate to require all insurance and reinsurance undertakings to apply the standardised calculation.

Simplified calculations shall be calibrated in accordance with Article 101(3).

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## *[<sup>F1</sup>Article 109a*

### **Harmonised technical inputs to standard formula**

1 For the purposes of the calculation of the Solvency Capital Requirement in accordance with the standard formula, the ESAs through the Joint Committee shall develop draft implementing technical standards on the allocation of credit assessments of external credit assessment institutions (ECAIs) to an objective scale of credit quality steps applying the steps specified in accordance with Article 111(1)(n).

The ESAs' Joint Committee shall submit those draft implementing technical standards to the Commission by 30 June 2015.

Power is conferred on the Commission to adopt the implementing technical standards referred to in the first subparagraph in accordance with Article 15 of Regulation (EU) No 1094/2010.

2 In order to ensure uniform conditions of application of this Article and for the purposes of facilitating the calculation of the market risk module referred to in Article 105(5), facilitating the calculation of the counterparty default risk module referred to in Article 105(6), evaluating risk mitigation techniques referred to in Article 101(5), and calculating technical provisions, EIOPA shall develop draft implementing technical standards on:

- a lists of regional governments and local authorities, exposures to whom are to be treated as exposures to the central government of the jurisdiction in which they are established, provided that there is no difference in risk between such exposures because of the specific revenue-raising powers of the former, and specific institutional arrangements exist, the effect of which is to reduce the risk of default;
- b the equity index referred to in Article 106(2), in accordance with the detailed criteria established under Article 111(1)(c) and (o);
- c the adjustments to be made for currencies pegged to the euro in the currency risk sub-module referred to in Article 105(5), in accordance with the detailed criteria for the adjustments for currencies pegged to the euro for the purpose of facilitating the calculation of the currency risk sub-module, as established under Article 111(1)(p).

EIOPA shall submit those draft implementing technical standards to the Commission by 30 June 2015.

Power is conferred on the Commission to adopt the implementing technical standards referred to in the first subparagraph in accordance with Article 15 of Regulation (EU) No 1094/2010.

3 EIOPA shall publish technical information including information concerning the symmetric adjustment referred to in Article 106 on at least a quarterly basis.

4 In order to ensure uniform conditions of application of this Article and for the purpose of facilitating the calculation of the health underwriting risk module referred to in Article 105(4), EIOPA shall develop draft implementing technical standards, taking into account the calculations provided by the supervisory authorities of the Member States concerned, on standard deviations in relation to specific national legislative measures of Member States which permit the sharing of claims payments in respect of health risk amongst insurance and reinsurance undertakings and which meet the criteria in paragraph 5 and any additional criteria established by delegated acts.

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EIOPA shall submit those draft implementing technical standards to the Commission by 30 June 2015.

Power is conferred on the Commission to adopt the implementing technical standards referred to in the first subparagraph in accordance with Article 15 of Regulation (EU) No 1094/2010.

5 The implementing technical standards referred to in paragraph 4 shall apply only to the national legislative measures of Member States which permit the sharing of claims payments in respect of health risk amongst insurance and reinsurance undertakings and which meet the following criteria:

- a the mechanism for the sharing of claims is transparent and fully specified in advance of the annual period to which it applies;
- b the mechanism for the sharing of claims, the number of insurance undertakings that participate in the health risk equalisation system (HRES) and the risk characteristics of the business subject to the HRES ensure that for each undertaking participating in the HRES the volatility of annual losses of the business subject to the HRES is significantly reduced by means of the HRES, both in relation to premium and to reserve risk;
- c health insurance subject to the HRES is compulsory and serves as a partial or complete alternative to health cover provided by the statutory social security system;
- d in the event of default of insurance undertakings participating in the HRES, one or more Member States' governments guarantee to meet the policy holder claims of the insurance business that is subject to the HRES in full.

The Commission shall adopt delegated acts in accordance with Article 301a which set out the additional criteria that the national legislative measures arrangements shall meet, and the methodology and the requirements for the calculation of the standard deviations referred to in paragraph 4 of this Article.]

#### **Textual Amendments**

- F1** Inserted by [Directive 2014/51/EU of the European Parliament and of the Council of 16 April 2014 amending Directives 2003/71/EC and 2009/138/EC and Regulations \(EC\) No 1060/2009, \(EU\) No 1094/2010 and \(EU\) No 1095/2010 in respect of the powers of the European Supervisory Authority \(European Insurance and Occupational Pensions Authority\) and the European Supervisory Authority \(European Securities and Markets Authority\).](#)

### *Article 110*

#### **Significant deviations from the assumptions underlying the standard formula calculation**

Where it is inappropriate to calculate the Solvency Capital Requirement in accordance with the standard formula, as set out in Subsection 2, because the risk profile of the insurance or reinsurance undertaking concerned deviates significantly from the assumptions underlying the standard formula calculation, the supervisory authorities may, by means of a decision stating the reasons, require the undertaking concerned to replace a subset of the parameters used in the standard formula calculation by parameters specific to that undertaking when calculating the life, non-life and health underwriting risk modules, as set out in Article 104(7). Those specific parameters shall be calculated in such a way to ensure that the undertaking complies with Article 101(3).

*f<sup>2</sup>Article III*

**Delegated acts and regulatory and implementing technical standards concerning Articles 103 to 109**

1 The Commission shall adopt delegated acts in accordance with Article 301a providing for the following:

- a a standard formula in accordance with Articles 101 and 103 to 109;
- b any sub-modules necessary or covering more precisely the risks which fall under the respective risk modules referred to in Article 104 as well as any subsequent updates;
- c the methods, assumptions and standard parameters to be calibrated to the confidence level referred to in Article 101(3) and to be used when calculating each of the risk modules or sub-modules of the basic Solvency Capital Requirement laid down in Articles 104, 105 and 304, the symmetric adjustment mechanism and the appropriate period of time, expressed in the number of months, as referred to in Article 106, and the appropriate approach for integrating the method referred to in Article 304 in the Solvency Capital Requirement as calculated in accordance with the standard formula;
- d the correlation parameters, including, where necessary, those set out in Annex IV, and the procedures for updating those parameters;
- e where insurance and reinsurance undertakings use risk-mitigation techniques, the methods and assumptions to be used to assess the changes in the risk profile of the undertaking concerned and to adjust the calculation of the Solvency Capital Requirement;
- f the qualitative criteria that the risk-mitigation techniques referred to in point (e) must fulfil in order to ensure that the risk has been effectively transferred to a third party;
- fa the method and parameters to be used when assessing the capital requirement for counterparty default risk in the case of exposures to qualifying central counterparties, those parameters ensuring consistency with the treatment of such exposures in the case of credit institutions and financial institutions within the meaning of Article 4(1)(1) and (26) of Regulation (EU) No 575/2013;
- g the methods and parameters to be used when assessing the capital requirement for operational risk set out in Article 107, including the percentage referred to in Article 107(3);
- h the methods and adjustments to be used to reflect the reduced scope for risk diversification of insurance and reinsurance undertakings relating to ring-fenced funds;
- i the method to be used when calculating the adjustment for the loss absorbing capacity of technical provisions or deferred taxes, as laid down in Article 108;
- j the subset of standard parameters in the life, non-life and health underwriting risk modules that may be replaced by undertaking-specific parameters as set out in Article 104(7);
- k the standardised methods to be used by the insurance or reinsurance undertaking to calculate the undertaking-specific parameters referred to in point (j), and any criteria with respect to the completeness, accuracy, and appropriateness of the data used that must be met before supervisory approval is given together with the procedure to be followed for such approval;
- l the simplified calculations provided for specific sub-modules and risk modules, as well as the criteria that insurance and reinsurance undertakings, including captive insurance and reinsurance undertakings, shall be required to fulfil in order to be entitled to use each of those simplifications, as set out in Article 109;

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- m the approach to be used with respect to related undertakings within the meaning of Article 212 in the calculation of the Solvency Capital Requirement, in particular the calculation of the equity risk sub-module referred to in Article 105(5), taking into account the likely reduction in the volatility of the value of those related undertakings arising from the strategic nature of those investments and the influence exercised by the participating undertaking on those related undertakings;
- n how to use external credit assessments from ECAIs in the calculation of the Solvency Capital Requirement in accordance with the standard formula and the allocation of external credit assessments to a scale of credit quality steps referred to in Article 109a(1) which shall be consistent with the use of external credit assessments from ECAIs in the calculation of the capital requirements for credit institutions as defined in Article 4(1)(1) of Regulation (EU) No 575/2013 and financial institutions as defined in Article 4(1)(26) thereof;
- o the detailed criteria for the equity index referred to in Article 109a(2)(c);
- p the detailed criteria for the adjustments for currencies pegged to the euro for the purpose of facilitating the calculation of the currency risk sub-module referred to in Article 109a(2)(d);
- q the conditions for a categorisation of regional governments and local authorities referred to in Article 109a(2)(a).

2 In order to ensure uniform conditions of application of this Article, EIOPA shall develop draft implementing technical standards on the procedures for supervisory approval of undertaking-specific parameters referred to in point (k) of paragraph 1.

EIOPA shall submit those draft implementing technical standards to the Commission by 31 October 2014.

Power is conferred on the Commission to adopt the implementing technical standards referred to in the first subparagraph in accordance with Article 15 of Regulation (EU) No 1094/2010.

3 By 31 December 2020, the Commission shall make an assessment of the appropriateness of the methods, assumptions and standard parameters used when calculating the Solvency Capital Requirement standard formula. It shall in particular take into account the performance of any asset class and financial instruments, the behaviour of investors in those assets and financial instruments as well as developments in international standard setting in financial services. The review of certain asset classes may be prioritised. The Commission shall present a report to the European Parliament and to the Council, accompanied, where appropriate, by proposals for the amendment of this Directive, or of delegated or implementing acts adopted pursuant hereto.

4 In order to ensure consistent harmonisation in relation to the Solvency Capital Requirement, EIOPA shall, subject to Article 301b, develop draft regulatory technical standards to specify quantitative limits and asset eligibility criteria where those risks are not adequately covered by a sub-module.

Power is delegated to the Commission to adopt the regulatory technical standards referred to in the first subparagraph in accordance with Articles 10 to 14 of Regulation (EU) No 1094/2010.

Those regulatory technical standards shall apply to assets covering technical provisions, excluding assets held in respect of life insurance contracts where the investment risk is borne by the policy holders. They shall be reviewed by the Commission in the light of developments in the standard formula and financial markets.]

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### Textual Amendments

- F2** Substituted by [Directive 2014/51/EU](#) of the European Parliament and of the Council of 16 April 2014 amending [Directives 2003/71/EC](#) and [2009/138/EC](#) and [Regulations \(EC\) No 1060/2009](#), [\(EU\) No 1094/2010](#) and [\(EU\) No 1095/2010](#) in respect of the powers of the European Supervisory Authority (European Insurance and Occupational Pensions Authority) and the European Supervisory Authority (European Securities and Markets Authority).