

**Final Report**

**on**

**Public Consultation No. 14/036 on**

**Guidelines on application of the life**

**underwriting risk module**

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# 1. Executive summary

## Introduction

According to Article 16 of Regulation (EU) No 1094/2010 (EIOPA Regulation) EIOPA may issue guidelines addressed to National Competent Authorities (NCAs) or financial institutions.

According to Article 16 of the EIOPA Regulation, EIOPA shall, where appropriate, conduct open public consultations and analyse the potential costs and benefits. In addition, EIOPA shall request the opinion of the Insurance and Reinsurance Stakeholder Group (IRSG) referred to in Article 37 of the EIOPA Regulation.

According to Article 105 (3) of Directive 2009/138/EC<sup>1</sup> (Solvency II Directive) and to Articles 137, 138 and 139 of the Implementing Measures<sup>2</sup>, EIOPA has developed guidelines for the application of the life underwriting risk module.

As a result of the above, on 2 June 2014 EIOPA launched a Public Consultation on the draft guidelines on the application of the life underwriting risk module. The Consultation Paper is also published on EIOPA's website<sup>3</sup>.

These guidelines were issued to NCAs to:

- Facilitate convergence of practice across Member States and support undertakings in calculating their capital requirement for life underwriting risk under Solvency II.

## Content

This Final Report includes the feedback statement to the consultation paper (EIOPA-CP-14/036) and the Guidelines. The Impact Assessment and cost and benefit analysis, and the Resolution of comments are published on EIOPA's website<sup>4</sup>.

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<sup>1</sup> OJ L 335, 17.12.2009, p. 1–155

<sup>2</sup> As published by the European Commission on 10 October 2014:

[http://ec.europa.eu/internal\\_market/insurance/docs/solvency/solvency2/delegated/141010-delegated-act-solvency-2\\_en.pdf](http://ec.europa.eu/internal_market/insurance/docs/solvency/solvency2/delegated/141010-delegated-act-solvency-2_en.pdf)

<sup>3 4</sup> <https://eiopa.europa.eu/consultations/consultation-papers/2014-closed-consultations/june-2014/public-consultation-on-the-set-1-of-the-solvency-ii-guidelines/index.html>

## **Next steps**

In accordance with Article 16 of the EIOPA Regulation, within 2 months of the issuance of these guidelines, each competent authority shall confirm if it complies or intends to comply with these guidelines. In the event that a competent authority does not comply or does not intend to comply, it shall inform EIOPA, stating the reasons for non-compliance.

EIOPA will publish the fact that a competent authority does not comply or does not intend to comply with these guidelines. The reasons for non-compliance may also be decided on a case-by-case basis to be published by EIOPA. The competent authority will receive advanced notice of such publication.

EIOPA will, in its annual report, inform the European Parliament, the Council and the European Commission of the guidelines issued, stating which competent authority has not complied with them, and outlining how EIOPA intends to ensure that concerned competent authorities follow its guidelines in the future.

## **2. Feedback statement**

### **Introduction**

EIOPA would like to thank the Insurance and Reinsurance Stakeholder Group (IRSG) and all the participants to the Public Consultation for their comments on the draft guidelines. The responses received have provided important guidance to EIOPA in preparing a final version of these guidelines. All of the comments made were given careful consideration by EIOPA. A summary of the main comments received and EIOPA's response to them can be found in the sections below. The full list of comments provided and EIOPA's responses to them is published on EIOPA's website.

### **General comments**

#### **1. Guidelines 1 and 4**

- a) Some stakeholders believe that Guidelines 1 to 4 are not needed. According to them, the Implementing Measures are clear enough and the shocks are to be applied directly to the rates referred to in the Solvency II Directive. But on the other hand, some other stakeholders seem to think that the shocks can be applied only to annual rates, which is actually not the case.
- b) Therefore, EIOPA feels Guidelines are needed, as there are different interpretations of the Implementing Measures. EIOPA confirms that the shocks have to be applied directly to the rates used for the calculation of technical provisions, be they annual, monthly or other rates.

#### **2. Increase of mortality**

- a) Stakeholders commented that in the case of an increase of mortality, the shock should be applied only where it leads to an increase in technical provisions, without the risk margin.
- b) EIOPA agrees with that comment, which is in line with the Implementing Measures, and has added its content to Guideline 1.

#### **3. Multi status guarantees**

- a) When considering multi status guarantees, stakeholders asked for further guidance on how to adjust rates which are not shocked, in order to be mathematically consistent.
- b) Guidelines have been specified: only the persistency rates should be adjusted to ensure that after the shock, the sum of transition rates from one state to others still adds up to 1.

#### **4. Development of further guidelines**

- a) Finally, some stakeholders asked EIOPA to develop other guidelines on the life-expense risk sub-module, the mortality and longevity risk sub-modules, the lapse risk sub-module and the life-catastrophe risk sub-module.

- b) EIOPA welcomes those comments, but considers them as not applicable to the Guidelines that have been published so far.

## **General nature of the participants to the Public Consultation**

EIOPA received comments from the Insurance and Reinsurance Stakeholder Group (IRSG) and four responses from other stakeholders to the public consultation. All the comments received have been published on EIOPA's website.

Respondents can be classified into two main categories: European trade, insurance, or actuarial associations; and national insurance or actuarial associations.

## **IRSG opinion**

The IRSG opinion on the draft set 1 of the Solvency II Guidelines on Pillar 1 and Internal Models, as well as the particular comments on the Guidelines at hand, can be consulted on EIOPA's website<sup>5</sup>.

## **Comments on the Impact Assessment**

A separate Consultation Paper was prepared covering the Impact Assessment for the Set 1 of EIOPA Solvency II Guidelines. Where the need for reviewing the Impact Assessment has arisen following comments on the guidelines, the Impact Assessment Report has been revised accordingly.

The revised Impact Assessment on the Set 1 of EIOPA Solvency II Guidelines can be consulted on EIOPA's website.

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<sup>5</sup> <https://eiopa.europa.eu/about-eiopa/organisation/stakeholder-groups/sgs-opinion-feedback/index.html>

## **Annex: Guidelines**

### **1. Guidelines on application of the life underwriting risk module**

#### **Introduction**

- 1.1. According to Article 16 of Regulation (EU) No 1094/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (hereinafter "EIOPA Regulation")<sup>6</sup> EIOPA is issuing Guidelines on application of the life underwriting risk module.
- 1.2. The Guidelines relate to Article 105 (3) of Directive 2009/138/EU 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 (hereinafter "Solvency II")<sup>7</sup> as well as to Articles 137, 138 and 139 of the Implementing Measures.
- 1.3. These Guidelines are addressed to supervisory authorities under Solvency II.
- 1.4. These Guidelines aim at facilitating convergence of practice across Member States and support undertakings in calculating their capital requirement for life underwriting risk under Solvency II.
- 1.5. These Guidelines include guidance on which rates should be shocked to calculate the capital requirement for the life underwriting risk module referred to in Article 105 (3) of Solvency II. They focus on the:
  - (a) mortality risk sub-module referred to in Article 105 (3) (a) of Solvency II and in Article 137 of the Implementing Measures;
  - (b) longevity risk sub-module referred to in Article 105 (3) (b) of Solvency II and in Article 138 of the Implementing Measures;
  - (c) disability-morbidity risk sub-module referred to in Article 105 (3) (c) of Solvency II and in Article 139 of the Implementing Measures.
- 1.6. Guideline 5 provides guidance on how undertakings should calculate the capital requirement for disability-morbidity risk in the case of a contract that allows for multiple states of disability. It aims at supporting undertakings in identifying properly which transition rates need to be shocked when calculating technical provisions under stress.
- 1.7. If not defined in these Guidelines, the terms have the meaning defined in the legal acts referred to in the introduction.
- 1.8. The Guidelines shall apply from 1 April 2015.

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<sup>6</sup> OJ L 331, 15.12.2010, p. 48–83

<sup>7</sup> OJ L 335, 17.12.2009, p. 1-155

### **Guideline 1 – Increase in mortality rates**

- 1.9. Undertakings should apply the increase in mortality rates referred to in Article 137 of the Implementing Measures irrespective of the time unit of the rates (annual, monthly, etc.) and where the increase in mortality rates leads to an increase in technical provisions without the risk margin. After the increase, rates should not exceed a value of 1.

### **Guideline 2 - Decrease in mortality rates**

- 1.10. Undertakings should apply the decrease in mortality rates referred to in Article 138 of the Implementing Measures irrespective of the time unit of the rates (annual, monthly, etc.) and where the decrease in mortality rates leads to an increase in technical provisions without the risk margin.

### **Guideline 3 - Increase in disability-morbidity inception rates**

- 1.11. Undertakings should apply the increase in disability and morbidity rates referred to in Article 139 (a) and (b) of the Implementing Measures irrespective of the time unit of the rate (annual, monthly, etc.). After the increase disability and morbidity rates should not exceed a value of 1.

### **Guideline 4 - Decrease in disability-morbidity recovery rates**

- 1.12. Undertakings should apply the decrease in disability and morbidity recovery rates referred to in Article 139 (c) of the Implementing Measures irrespective of the time unit of the rate (annual, monthly, etc.).
- 1.13. Notwithstanding the above paragraph, undertakings should not apply the decrease to recovery rates with a value of 1, which merely reflects the fact that the benefit payments end after a contractually fixed period.

### **Guideline 5 - Multi-status guarantees**

- 1.14. Where rates of transition between several health statuses enter into the calculation of technical provisions, undertakings should consider all rates of transition from one status to a more severe one as disability and morbidity rates and all rates of transition from one status to a less severe one (including the status "healthy") as disability and morbidity recovery rates for the purpose of calculating the capital requirement for disability-morbidity risk referred to in Article 139 of the Implementing Measures, irrespective of the current status of the policyholder for which a technical provision is calculated.
- 1.15. Only the persistency rates should be adjusted to ensure that after the shock, the sum of transition rates from one state to others still adds up to 1.



## **Compliance and Reporting Rules**

- 1.16. This document contains Guidelines issued under Article 16 of the EIOPA Regulation. In accordance with Article 16 (3) of the EIOPA Regulation, Competent Authorities and financial institutions shall make every effort to comply with guidelines and recommendations.
- 1.17. Competent authorities that comply or intend to comply with these Guidelines should incorporate them into their regulatory or supervisory framework in an appropriate manner.
- 1.18. Competent authorities shall confirm to EIOPA whether they comply or intend to comply with these Guidelines, with reasons for non-compliance, within two months after the issuance of the translated versions.
- 1.19. In the absence of a response by this deadline, competent authorities will be considered as non-compliant to the reporting and reported as such.

## **Final Provision on Reviews**

- 1.20. The present Guidelines shall be subject to a review by EIOPA.

## 2. Explanatory text

### **Guideline 1 – Increase in mortality rates**

Undertakings should apply the increase in mortality rates referred to in Article 137 of the Implementing Measures irrespective of the time unit of the rates (annual, monthly, etc.) and where the increase in mortality rates leads to an increase in technical provisions without the risk margin. After the increase, rates should not exceed a value of 1.

2.1 Where an annual (resp. monthly) mortality rate is used for the calculation of technical provisions, then this annual (resp. monthly) mortality rate will be shocked.

2.2 The same applies for Guidelines 2, 3 and 4.

### **Guideline 4 – Decrease in disability-morbidity recovery rates**

Undertakings should apply the decrease in disability and morbidity recovery rates referred to in Article 139 (c) of the Implementing Measures irrespective of the time unit of the rate (annual, monthly, etc.).

Notwithstanding the above paragraph, undertakings should not apply the decrease to recovery rates with a value of 1, which merely reflects the fact that the benefit payments end after a contractually fixed period.

2.3 Where a disability and morbidity recovery rate has a value of 1 and this reflects merely the fact that the benefit payments end after a contractually fixed period there is no reason to apply the decrease referred to in Article 139 (c) of the Implementing Measures.

2.4 For illustration consider the following series of recovery rates, expressed on a monthly basis:

Time since inception	0	1	2	3	4	5	6
Recovery rate	0.8	0.5	0.2	0.1	0.05	0.04	1

2.5 The shocked recovery rates to be used for recalculating the technical provisions after the disability-morbidity shock are the following:

Time since inception	0	1	2	3	4	5	6
Recovery rate	0.64	0.4	0.16	0.08	0.04	0.032	1

### Guideline 5 – Multi-status guarantees

Where rates of transition between several health statuses enter into the calculation of technical provisions, undertakings should consider all rates of transition from one status to a more severe one as disability and morbidity rates and all rates of transition from one status to a less severe one (including the status “healthy”) as disability and morbidity recovery rates for the purpose of calculating the capital requirement for disability-morbidity risk referred to in Article 139 of the Implementing Measures, irrespective of the current status of the policyholder for which a technical provision is calculated.

Only the persistency rates should be adjusted to ensure that after the shock, the sum of transition rates from one state to others still adds up to 1.

2.6 For illustration consider an insurance contract that insures two different states of disability, i.e. the insured person can be in one of four different states:

- (1) Healthy
- (2) Disabled
- (3) Heavily disabled
- (4) Dead

2.7 Between these states one can define transition rates for a specific age  $x$ :

From\to	Healthy (1)	Disabled (2)	Heavily disabled (3)	Dead (4)
Healthy (1)	$p(1,1)$	$p(1,2)$	$p(1,3)$	$p(1,4)$
Disabled (2)	$p(2,1)$	$p(2,2)$	$p(2,3)$	$p(2,4)$
Heavily disabled (3)	$p(3,1)$	$p(3,2)$	$p(3,3)$	$p(3,4)$
Dead (4)	0	0	0	1

2.8 Some models use only a subset of the transition rates for determining expected future cash-flows and some differentiate between the statuses healthy and reactivated. However, for the application of Article 139 of the Implementing Measures the last line and column of the table (mortality rates) are not relevant. The diagonal entries might change due to a shock to the other rates, but they are not relevant in the following.

### Shocks on disability and morbidity rates:

2.9 Every transition rate from a status to a more severe one needs to be shocked as disability-morbidity rate (in the table below shocked transition rates are in **bold print**):

From\to	Healthy (1)	Disabled (2)	Heavily disabled (3)	Dead (4)
Healthy (1)	$p(1,1)$	<b><math>p(1,2)</math></b>	<b><math>p(1,3)</math></b>	$p(1,4)$
Disabled (2)	$p(2,1)$	$p(2,2)$	<b><math>p(2,3)</math></b>	$p(2,4)$

Heavily disabled (3)	$p(3,1)$	$p(3,2)$	$p(3,3)$	$p(3,4)$
Dead (4)	0	0	0	1

2.10 The effect of the shocks on the rest of the matrix needs to be considered. To do so, only the diagonal (i.e. persistency rates  $p(1,1)$  and  $p(2,2)$ ) will be adjusted to ensure that after the shock, each row still adds up to 1.

### Shocks on disability and morbidity recovery rates:

2.11 Every transition rate from a status to a less severe one (including the status "healthy") needs to be shocked as disability-morbidity recovery rate (in the table below shocked transition rates are in **bold print**):

From\to	Healthy (1)	Disabled (2)	Heavily disabled (3)	Dead (4)
Healthy (1)	$p(1,1)$	$p(1,2)$	$p(1,3)$	$p(1,4)$
Disabled (2)	<b><math>p(2,1)</math></b>	$p(2,2)$	$p(2,3)$	$p(2,4)$
Heavily disabled (3)	<b><math>p(3,1)</math></b>	<b><math>p(3,2)</math></b>	$p(3,3)$	$p(3,4)$
Dead (4)	0	0	0	1

2.12 The effect of the shocks on the rest of the matrix needs to be considered. To do so, only the diagonal (i.e. persistency rates  $p(2,2)$  and  $p(3,3)$ ) will be adjusted to ensure that after the shock, each row still adds up to 1.