**Preface**

The purpose of this working program is to document possible audit/assurance procedures planned and performed in respect of the best estimate of the insurance liabilities in the life business (gross from reinsurance). It has been prepared based on the assumption that reasonable assurance is to be obtained for the calculation of these liabilities. It does not cover the audit / assurance procedures to be carried out with respect to the risk margin of the technical provisions under Solvency II. We refer to the separate working program that covers the audit/assurance procedures to be carried out on the risk margin of the technical provisions under Solvency II.

This working program is composed of two parts. The first part deals with the reliance that can be placed on internal controls. For the various components of the process, typical internal controls that can be expected to be in place have been listed. These lists are however not to be considered as exhaustive and should be tailored to each specific assignment. Three different categories of controls are used: operating controls, IT controls and model governance controls. The auditor’s evaluation over internal controls covers the both the evaluation of the design and implementation of the internal control identified and the evaluation of the operating effectiveness of internal controls for which the design has been assessed as effective.

Evaluating the design of a control involves considering whether the control, individually or in combination with other controls, is capable of effectively preventing, or detecting and correcting, material misstatements. Implementation of a control means that the control exists and that the entity is using it. Procedures to obtain audit evidence about the design and implementation of relevant controls may include inquiring of entity personnel, observing the application of specific controls, inspecting documents and reports and tracing transactions through the relevant information system (walk through). Inquiry alone, however, is not sufficient to evaluate the design and implementation of relevant controls. When evaluating the design and implementation of a control, the auditor considers the objective of the control (which also addresses the risk, including fraud risk, it helps to mitigate), how it is performed and documented, including the nature and size of the potential misstatements addressed and end-user computing considerations, the nature of the control, whether the control addresses a fraud risk, how frequently it is applied, the knowledge, experience and skills of the person performing it (if a manual control or a manual control with an automated component), the related IT application, if any, size and complexity of the entity, the auditor’s existing knowledge of the entity's internal controls and the nature and extent of changes in the systems and operations.

Testing the operating effectiveness of controls is performed only on those controls for which the auditor believes that those are suitably designed to prevent, or detect and correct, a material misstatement in an assertion. The following audit procedures may be used, often in combination, to obtain audit evidence about the operating effectiveness of controls: inquiry, observation, inspection, re-performance and recalculation. Inquiry alone is not sufficient to test the operating effectiveness of controls. Accordingly, other audit procedures are performed in combination with inquiry.

The second part deals with the additional substantive procedures to be performed. The determination of the extent of substantive procedures is dependent on the operating effectiveness of internal controls. This part of the program is based on the assumption that full reliance can be placed on internal controls identified in the first part of this working program (given the fact that both the Solvency II framework and the Law of 13 March 2016 require that the insurance undertaking must have a system of internal control adapted to the nature, size and complexity of the business). Full reliance means that sufficient controls have been put in place by management to address the risks inherent in the process and the practitioner has evaluated that these controls are working effectively. In case that certain internal controls would be missing or that certain internal controls are not operating effectively, these substantive procedures require further completion, by designing and performing procedures (based on the controls identified in the first part of this document) substantively by reference to known sampling methods (statistical sampling, non-statistical sampling, attribute sampling). This part also requires further customization to the specific characteristics of the insurance company. In appendix, a non-exhaustive list of substantive procedures has been attached to this working program that the auditor can use for the selection of additional substantive procedures in case for certain internal controls the design and/or operating effectiveness would be evaluated as “non-effective”.

Attention is also drawn to the fact that this program is based on the assumption that sufficient testing (both internal controls and substantive) has been performed on the underwriting, claims, actuarial, reinsurance and other operational processes of the insurance company by the auditor during the audit of the statutory accounts / periodic returns. As a result, this working program only covers the additional procedures to be performed by the auditor in order to obtain reasonable assurance on the best estimate calculations in accordance with Solvency II principles and the technical standards issued by EIOPA.

Note that a number of reporting requirements linked to the Best Estimate calculations are covered in other working programs, for example Earned Profit in Future Premiums (see working program on Own Funds) and details on Best Estimate cash flows (see working program developed in the context of the data quality circular).

Abbreviations used in this document

EUC: End User Computing

LAT: Liability Adequacy Test

1. **Collaboration with independent control functions and other experts**

During the execution of the audit/assurance procedures on the best estimate calculations, the statutory auditor will contact, inquire and review the reports of the different independent control functions in order to ensure that recommendations / remarks issued by these control functions have been properly addressed by the insurance undertaking for the calculation of the best estimate. The statutory auditor will in particular perform the necessary inquiries with respect to the work performed by the actuarial function as well as an in-depth review of the reports issued by the actuarial function, given that under the Solvency II framework this function is responsible to:

* coordinate the calculation of technical provisions;
* ensure the appropriateness of the methodologies and underlying models used as well as the assumptions made in the calculation of technical provisions;
* assess the sufficiency and quality of the data used in the calculation of technical provisions;
* compare best estimates against experience;
* inform the administrative, management or supervisory body of the reliability and adequacy of the calculation of technical provisions; and
* oversee the calculation of technical provisions in the cases set out in article 59 of Law of 13 March 2016.

It is also required that the statutory auditor inquires the internal audit function in order to assess to what extent internal audit has performed any audit assignments with respect to the best estimate calculations performed by the insurance undertaking.

When the statutory auditor decided to rely (partly) on the work performed by internal audit, the actuarial function or any other (management) expert, it follows the requirements set forth in ISA 610 “Using the work of internal audit and/or ISA 500 “Audit Evidence” (which is broadly consistent with ISA 620 “Using the work of an auditor’s expert”). In this context, it is to be noted that the auditor has the sole responsibility for the assurance report expressed, and that responsibility is not reduced by the auditor’s use of internal audit and/or expert. Once the auditor has determined to use the work of internal audit or an expert, it will:

* evaluate the competence and capabilities of the internal audit function/expert;
* evaluate the objectivity of the internal audit function/expert;
* obtain an understanding of the internal audit function’s /expert’s field of expertise;
* agree terms of the collaboration (in particular the scope of the work, which should be consistent with the procedures indicated in this working program);
* evaluate the adequacy of the work performed (including review of working papers prepared and if deemed necessary re-performance of procedures).

1. **WORKING PROGRAM CONTROL TESTING**

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| **DATA INPUT (DI)** | | | | | | | | | | | | | | |
| **Control reference** | **Anti - fraud control** | **Significant account/ disclosure** | **C** | **E** | **A** | **V** | **O** | **P** | **Evaluation of the control’s design and implementation** | | **Evaluation of the control’s operating effectiveness** | | | |
| **Results of evaluation of design and implementati on** | **W/P Ref** | **Control description** | **Results of test(s) of operating effectiveness** | **Done by and date** | **W/P Ref** |
|  | [Y/ N] |  |  |  |  |  |  |  | [Effective /  not effective] |  |  | [Effective /  not effective] |  |  |
| **DI 01** |  | Technical  Provisions | X | X | X |  |  |  |  |  | **Operating controls**  ■ Assess modeled business by sense checks, logic checks and plausibility checks, e.g. comparison to prior year data, check of sums   * Check of exclusion of liabilities scoped by the IAS 19 accounting standard.   ■ Check of correct inclusion of new business and especially of new/updated tariffs  ■ Check of immateriality for not modeled business  ■ Check of handling of policies not yet being captured by data input system (exception reporting) |  |  |  |

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| **Results of evaluation of design and implementati on** | **W/P Ref** | **Control description** | **Results of test(s) of operating effectiveness** | **Done by and date** | **W/P Ref** |
| **DI 02** |  | Technical  Provisions |  |  |  |  |  |  |  |  | **IT related controls**  ■ General IT controls  ■ Automated controls on interfacing between administrative / in-force and calculation systems  ■ Controls for data input into Excel or other EUC applications |  |  |  |
| **DI 03** |  | Technical  Provisions |  |  |  |  |  |  |  |  | **Model governance controls**  ■ Controls relating to data quality policy, self-assessment and action plan (Circular NBB\_2017\_27)  ■ Data governance controls (ownership of data) |  |  |  |

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| **DATA MANIPULATION AND GROUPING (DM)** | | | | | | | | | | | | | | |
| **Control reference** | **Anti - fraud control** | **Significant account/ disclosure** | **C** | **E** | **A** | **V** | **O** | **P** | **Evaluation of the control’s design and implementation** | | **Evaluation of the control’s operating effectiveness** | | | |
| **Results of evaluation of design and implementati on** | **W/P Ref** | **Control description** | **Results of test(s) of operating effectiveness** | **Done by and date** | **W/P Ref** |
| **DM 01** |  | Technical  Provisions | X | X | X |  |  |  |  |  | **Operating controls**  ■ Cross checks on overall sums and completeness of the different model-points and groupings by comparing e.g.   * sum of reserves at start of projection * sum of premiums at start of projection * recalculation of and reconciliation with statutory provisions   ■ Plausibility checks using deterministic projections on development of e.g. reserves, premiums, claims  ■ Check whether the not modeled business would change the profile of the model-points significantly when being included |  |  |  |

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| **Control reference** | **Anti - fraud control** | **Significant account/ disclosure** | **C** | **E** | **A** | **V** | **O** | **P** | **Evaluation of the control’s design and implementation** | | **Evaluation of the control’s operating effectiveness** | | | |
| **Results of evaluation of design and implementati on** | **W/P Ref** | **Control description** | **Results of test(s) of operating effectiveness** | **Done by and date** | **W/P Ref** |
| **DM 02** |  |  |  |  |  |  |  |  |  |  | **IT related controls**  ■ Controls on automated data structuring  ■ End user computing |  |  |  |
| **DM 03** |  |  |  |  |  |  |  |  |  |  | **Model governance controls**  ■ Governance controls on decisions in the data structuring process, especially on authorization, documentation and rationale  ■ 4-eyes principles (e.g. on major corrections, adjustments and manual entries) |  |  |  |

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| **ASSUMPTION SETTING (AS)** | | | | | | | | | | | | | | |
| **Control reference** | **Anti - fraud control** | **Significant account/ disclosure** | **C** | **E** | **A** | **V** | **O** | **P** | **Evaluation of the control’s design and implementation** | | **Evaluation of the control’s operating effectiveness** | | | |
| **Results of evaluation of design and implementati on** | **W/P Ref** | **Control description** | **Results of test(s) of operating effectiveness** | **Done by and date** | **W/P Ref** |
| **AS 01** |  | Technical  Provisions | X | X | X |  |  |  |  |  | **Operating controls**  ■ Input checks  ■ Spot check on assumptions  ■ Review of governance model for assumption setting by e.g.   * Analysis on actual versus expected / experienced * Back testing and further test calculations * Law of March 13, 2016 * Compliance with circular NBB\_2016\_26 “Valuation of TP” |  |  |  |

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| **ASSUMPTION SETTING (AS)** | | | | | | | | | | | | | | |
| **Control reference** | **Anti - fraud control** | **Significant account/ disclosure** | **C** | **E** | **A** | **V** | **O** | **P** | **Evaluation of the control’s design and implementation** | | **Evaluation of the control’s operating effectiveness** | | | |
| **Results of evaluation of design and implementati on** | **W/P Ref** | **Control description** | **Results of test(s) of operating effectiveness** | **Done by and date** | **W/P Ref** |
| **AS 01** |  | Technical  Provisions | X | X | X |  |  |  |  |  | * Compliance with Circular NBB\_2016\_31 “Governance” (updated 05/05/2020) * Compliance with communication NBB\_2017\_32 “Expense Modelling for TP” * Compliance with Circular NBB\_2016\_24 “Contract Boundaries” * Compliance with Circular NBB\_2016\_25 “Long Term Guarantee” * Compliance with Circular NBB\_2016\_26 “Valuation of TP”   ■ Discussion with / validation by business units,  ■ Peer review |  |  |  |

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| **Control reference** | **Anti - fraud control** | **Significant account/ disclosure** | **C** | **E** | **A** | **V** | **O** | **P** | **Evaluation of the control’s design and implementation** | | **Evaluation of the control’s operating effectiveness** | | | |
| **Results of evaluation of design and implementati on** | **W/P Ref** | **Control description** | **Results of test(s) of operating effectiveness** | **Done by and date** | **W/P Ref** |
| **AS 03** |  |  |  |  |  |  |  |  |  |  | **Model governance controls**  ■ Model governance controls on authorization, & review, documentation and rationale  ■ Change management process around assumptions; e.g. 4-eyes principle  ■ Implementation of an assumption setting committee / model committee |  |  |  |

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| **PERFORMANCE OF CALCULATION (PC)** | | | | | | | | | | | | | | |
| **Control reference** | **Anti - fraud control** | **Significant account/ disclosure** | **C** | **E** | **A** | **V** | **O** | **P** | **Evaluation of the control’s design and implementation** | | **Evaluation of the control’s operating effectiveness** | | | |
| **Results of evaluation of design and implementati on** | **W/P Ref** | **Control description** | **Results of test(s) of operating effectiveness** | **Done by and date** | **W/P Ref** |
| **PC 01** |  | Technical Provisions | X | X | X |  |  |  |  |  | **Operating controls**  ■ Plausibility checks on results  ■ Documentation of preliminary results and rationale  ■ Plausibility checks on aggregation impact, e.g. assessment on reconciliation and comparison to prior year |  |  |  |
| **PC 02** |  | Technical  Provisions | X | X | X |  |  |  |  |  | **IT related controls**  ■ General IT controls  ■ End user computing controls  ■ Application controls in the calculation process. |  |  |  |

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| **Control reference** | **Anti - fraud control** | **Significant account/ disclosure** | **C** | **E** | **A** | **V** | **O** | **P** | **Evaluation of the control’s design and implementation** | | **Evaluation of the control’s operating effectiveness** | | | |
| **Results of evaluation of design and implementati on** | **W/P Ref** | **Control description** | **Results of test(s) of operating effectiveness** | **Done by and date** | **W/P Ref** |
| **PC 03** |  | Technical  Provisions | X | X | X |  |  |  |  |  | **Model governance controls**  ■ Governance controls on authorization & review, documentation and rationale especially regarding sufficient assessment of stability and robustness of results  ■ 4-eyes principle on performed manual calculation steps |  |  |  |

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| **VALIDATION OF MODEL OPERATION AND ASSESSMENT OF RESULTS (VMO)** | | | | | | | | | | | | | |  |
| **Control reference** | **Anti - fraud control** | **Significant account/ disclosure** | **C** | **E** | **A** | **V** | **O** | **P** | **Evaluation of the control’s design and implementation** | | **Evaluation of the control’s operating effectiveness** | | | |
| **Results of evaluation of design and implementati on** | **W/P Ref** | **Control description** | **Results of test(s) of operating effectiveness** | **Done by and date** | **W/P Ref** |
| **VMO 01** |  | Technical  Provisions | X | X | X |  |  |  |  |  | **Operating controls**  ■ Required comparison of calculation results (stability of the outputs)  ■ Analysis of change (impact of changing assumption (per assumption), experience variance, impact of new business (under SII contract boundaries))  ■ Assessment on model stability  ■ Analysis of the reasonableness of stochastic model results by comparing variability of cash flows for central / pessimistic / optimistic scenarios  ■ Comparison with IFRS / statutory reserves  ■ Preparation of commentary (business review) |  |  |  |

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| **Control reference** | **Anti - fraud control** | **Significant account/ disclosure** | **C** | **E** | **A** | **V** | **O** | **P** | **Evaluation of the control’s design and implementation** | | **Evaluation of the control’s operating effectiveness** | | | |
| **Results of evaluation of design and implementati on** | **W/P Ref** | **Control description** | **Results of test(s) of operating effectiveness** | **Done by and date** | **W/P Ref** |
| **VMO 02** |  | Technical  Provisions | X | X | X |  |  |  |  |  | **Model governance controls**  ■ Governance controls on authorization & review  ■ 4-eyes principle and independent approval of validation results  ■ Management review on results |  |  |  |

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| **PREPARATION OF RESULTS AND REPORTING (PRR)** | | | | | | | | | | | | | |  |
| **Control reference** | **Anti - fraud control** | **Significant account/ disclosure** | **C** | **E** | **A** | **V** | **O** | **P** | **Evaluation of the control’s design and implementation** | | **Evaluation of the control’s operating effectiveness** | | | |
| **Results of evaluation of design and implementati on** | **W/P Ref** | **Control description** | **Results of test(s) of operating effectiveness** | **Done by and date** | **W/P Ref** |
| **PRR 01** |  | Technical  Provisions |  |  |  |  |  | X |  |  | **Operating controls**   * Standard reporting formats * Cross checks with output data from the calculation tool * Check of inclusion of not modelled business * Check of adequacy of split into lines of business and reporting groups * Check consistency to reports during the period * Reconciliation with IFRS / statutory reporting * Reconciliation with QRTs in scope for NBB reporting (Circular NBB\_2017\_20) – cf. separate template work programme developed for data quality |  |  |  |

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| **Control reference** | **Anti - fraud control** | **Significant account/ disclosure** | **C** | **E** | **A** | **V** | **O** | **P** | **Evaluation of the control’s design and implementation** | | **Evaluation of the control’s operating effectiveness** | | | |
| **Results of evaluation of design and implementati on** | **W/P Ref** | **Control description** | **Results of test(s) of operating effectiveness** | **Done by and date** | **W/P Ref** |
| **PRR 02** |  | Technical  Provisions |  |  |  |  |  | X |  |  | **IT controls**   * Technical review on formulas and definitions and automated controls in case of IT -based reporting formats * End user computing in case of non-automated reporting formats |  |  |  |
| **PRR 03** |  | Technical  Provisions |  |  |  |  |  | X |  |  | **Model governance controls**  ■ Management review and model package sign-off |  |  |  |

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| **PERFORMANCE OF MODEL CHANGES (PM)** | | | | | | | | | | | | | | |
| **Control reference** | **Anti - fraud control** | **Significant account/ disclosure** | **C** | **E** | **A** | **V** | **O** | **P** | **Evaluation of the control’s design and implementation** | | **Evaluation of the control’s operating effectiveness** | | | |
| **Results of evaluation of design and implementati on** | **W/P Ref** | **Control description** | **Results of test(s) of operating effectiveness** | **Done by and date** | **W/P Ref** |
| **PM 01** |  | Technical  Provisions | X | X | X |  |  |  |  |  | **Operating controls**  ■ Test and approval of the model scope & design    ■ Review of conceptual design incl. comparison to the initial scope and assessment on implications to the overall model environment  ■ Test and approval of the model implementation  ■ Checks and controls based on the company’s model change guidelines; esp.   * Controls on the set- up of appropriate test cases * Validation activities and on adequate implementation tests * Review of user acceptance testing |  |  |  |

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| **Control reference** | **Anti - fraud control** | **Significant account/ disclosure** | **C** | **E** | **A** | **V** | **O** | **P** | **Evaluation of the control’s design and implementation** | | **Evaluation of the control’s operating effectiveness** | | | |
| **Results of evaluation of design and implementati on** | **W/P Ref** | **Control description** | **Results of test(s) of operating effectiveness** | **Done by and date** | **W/P Ref** |
| **PM 02** |  | Technical  Provisions | X | X | X |  |  |  |  |  | **IT related controls**  ■ Controls on the adequacy of the technical design and technical implementation tests |  |  |  |
| **PM 03** |  | Technical  Provisions | X | X | X |  |  |  |  |  | **Model governance controls**  ■ Governance controls on authorization & review, documentation, rationale in accordance with the company’s model change guidelines |  |  |  |

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| **MODEL VALIDATION (MV)** | | | | | | | | | | | | | | |
| **Control reference** | **Anti - fraud control** | **Significant account/ disclosure** | **C** | **E** | **A** | **V** | **O** | **P** | **Evaluation of the control’s design and implementation** | | **Evaluation of the control’s operating effectiveness** | | | |
| **Results of evaluation of design and implementati on** | **W/P Ref** | **Control description** | **Results of test(s) of operating effectiveness** | **Done by and date** | **W/P Ref** |
| **MV 01** |  | Technical  Provisions | X | X | X |  |  |  |  |  | **Operating controls**  ■ Preparation and review of model validation report  ■ Assessment on model limitation and further recommendation |  |  |  |
| **MV 03** |  | Technical  Provisions | X | X | X |  |  |  |  |  | **Model governance controls**  ■ Governance controls on authorization & review, documentation and rationale  ■ Approval of tests and validation results in accordance with an implemented model change and validation policy, data policy and further model governance requirements |  |  |  |

**II. Working program substantive procedures: Best estimate of the liabilities**

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| **Rationale for risk of significant misstatement assessment** | | **Risk of significant misstatement (ROSM)** |
| Inherent risk | Inherent risk is assessed as significant.  Due to the significant uncertainty and judgments involved, there is inherent risk in the calculation of the long term business amounts. Provisioning directly impacts on solvency, capital adequacy and the going concern assumption. Additionally, specific inherent risk of miscalculation of best estimates including lack of control over actuarial modelling and inappropriate choice of assumptions. | **LOW**  **MEDIUM**  **HIGH** |
| Control risk | To assess the control risk based on the audit team’s evaluation over the design, implementation and operating effectiveness of controls identified in the reserving process (see chapter I Working program control testing). |

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| **AP Reference** | **Nature, timing and extent of audit/assurance procedures** | **Significant account / disclosure** | **Reference to Law of 13 March 2016, Executory Measures of the Solvency II directive and NBB guidelines** | **Done by and date** | **W/P Ref** |
|  | ***Substantive analytical procedures*** |  |  |  |  |
|  | None identified. Given the complexity involved, it is quite unlikely that an upfront independent expectation of the model output can be determined |  |  |  |  |
|  | ***Tests of details*** |  |  |  |  |
|  | **Data Input, manipulation and grouping** |  | General References on data quality:   * Directive 2009/138/EC – Article 82 * Delegated Regulation 2015/35 – Article 19, 21, 34 * Guidelines on valuation of technical provisions: Section 1 * Law of March 13, 2016 * Circular NBB\_2017\_27 “Data Quality” * Circular NBB\_2016\_26 “Valuation of TP” * Communication NBB\_2017\_32 “Expense Modelling for TP” * Compliance with Circular NBB\_2016\_24 “Contract Boundaries” * Compliance with Circular NBB\_2016\_25 “Long Term Guarantee” |  |  |
| **DI** | Review reconciliations of the data used within the  models to the policy master-files. Follow up where differences have been found. | Technical  provisions | * Guidelines on valuation of technical provisions - Guideline 3 |  |  |
| **AP Reference** | **Nature, timing and extent of audit/assurance procedures** | **Significant account / disclosure** | **Reference to Law of 13 March 2016, Executory Measures of the Solvency II directive and NBB guidelines** | **Done by and date** | **W/P Ref** |
| **DI** | Consider any required changes to data and assess  whether changes have been performed correctly. Confirm whether any spot checks have been completed. | Technical  provisions | * Guidelines on valuation of technical provisions – Guidelines 1-2 and 9 - 14 |  |  |
| **DI** | Based on the assessment of the control risk, to be completed with procedures listed in chapter I “Working program control testing” of this document which are to be carried out by the audit team substantively (this will be the case when control risk is assessed as medium / high as a result of identified control deficiencies) | Technical provisions |  |  |  |

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| **AP Reference** | **Nature, timing and extent of audit/assurance procedures** | **Significant account / disclosure** | **Reference to Law of 13 March 2016, Executory Measures of the Solvency II directive and NBB guidelines** | **Done by and date** | **W/P Ref** |
|  | **Assumption Setting and model update** |  | General References on assumption setting and model update:   * Delegated Regulation 2015/35 * Guidelines on valuation of technical provisions * Law of March 13, 2016 * Circular NBB\_2017\_27 “Data Quality” * Circular NBB\_2016\_26 “Valuation of TP” * Communication NBB\_2017\_32 “Expense Modelling for TP” * Circular NBB\_2016\_24 “Contract Boundaries” * Compliance with Circular NBB\_2016\_25 “Long Term Guarantee” |  |  |
| **AS** | Consider the entity's approach to setting assumptions (economical and operating) and assess whether they are consistent with industry practice and Management's approval process | Technical  provisions | * Law of 13 March 2016 * Delegated Regulation 2015/35 – Article 73 * Guidelines on valuation of technical provisions: Article 15; 39; 86 |  |  |

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| **AP Reference** | **Nature, timing and extent of audit/assurance procedures** | **Significant account / disclosure** | **Reference to Law of 13 March 2016, Executory Measures of the Solvency II directive and NBB guidelines** | **Done by and date** | **W/P Ref** |
| **AS** | Review (changes to) assumptions, or lack of changes,  from last year, review the approach to setting assumptions and consistency with industry practice or company experience.  Assumptions should especially be checked for:  a) consistency with internal investigations  b) being up-to-date  c) sufficient grade of detail with regard to factors of relevance  d) Appropriate level of product and duration detail | Technical  provisions | * Law of 13 March 2016 * Delegated Regulation 2015/35 – Article 22 and further * Guidelines on valuation of technical provisions: Guideline 5 and section 3 |  |  |

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|  | For **economic assumptions**, at least the following checks are to be performed:  • Reference interest rates (market-consistent or appropriate assumptions in absence of a (deep and liquid) market) (see also below – discount rate for the discounting of future cash flows)  • Correlation between the economic assumptions  • Treatment of multiple currencies   * Indexation (e.g. for inflation sensitive business such as workmen’s compensation)   For **expenses**, at least the following checks are to be performed:  • Reconciliation of costs to audited sources  • Consistency with assumptions used elsewhere (LAT, business plan)  • Treatment of inflation, commissions, management fees, fund based commissions  • Back-testing of cost projections  • How has indexation been modeled |  | * Law of 13 March 2016 * Delegated Regulation 2015/35 – Article 32-33; 43-54 * Guidelines on valuation of technical provisions: Guideline 15 and section 3, Guidelines 35-43; 53-60 * Circular NBB\_2016\_26 “Valuation of TP” * Circular NBB\_2016\_25 “Long Term Guarantee” * Law of 13 March 2016 * Delegated Regulation 2015/35 – Article 31 and 35 * Guidelines on valuation of technical provisions: Guideline 28 – 34 * Communication NBB\_2017\_32 “Expense Modelling for TP” |  |  |

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| **AP Reference** | **Nature, timing and extent of audit/assurance procedures** | **Significant account / disclosure** | **Reference to Law of 13 March 2016, Executory Measures of the Solvency II directive and NBB guidelines** | **Done by and date** | **W/P Ref** |
| **AS** | For **biometric assumptions** (mortality, morbidity, lapses, partial surrenders, etc.), at least the following checks are to be performed:  • Consistency with the company’s experience for the major product classes  • Have past trends/future expected trends been taken into account or any known changes to the environment in which the company operates (internal and external)  • Comparison with / reference to industry data | Technical provisions | * Law of 13 March 2016 * Guidelines on valuation of technical provisions: Guideline 25 – 28 * Guidelines on valuation of technical provisions: Section 1 * Circular NBB\_2016\_26 “Valuation of TP” |  |  |
| **AS** | Assess whether assumptions are in line with the requirements set forth in the applicable guidelines, in particular the discount rate, which should also encompass the so-called volatility adjustment. | Technical provisions | * Delegated Regulation 2015/35 – Article 44-48 * Delegated Regulation 2015/35 – Article 49-51 * Circular NBB\_2016\_26 “Valuation of TP” * Circular NBB\_2016\_25 “Long Term Guarantee |  |  |
| **AS** | If the company makes use of the matching adjustment, ensure that all conditions for its utilization are satisfied and assess its appropriate determination. | Technical provisions | * Delegated Regulation 2015/35 – Article 52-54 |  |  |
| **AS** | Verify that the data used for the determination of assumptions is up-to-date and appropriate | Technical provisions | * Directive 2009/138/EC – Article 82 * Delegated Regulation 2015/35 – Article 19 * Guidelines on valuation of technical provisions: Section 1 * Circular NBB\_2017\_27 on data quality |  |  |

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| **AS** | Review Economic Scenario Generator (ESG) assumptions  • Assess whether they satisfy the applicable guidelines  • Assess whether these generate asset prices that are consistent with deep, liquid and financial markets  • Assess whether they do not incorporate arbitrage opportunities  • Assess whether there are sufficient simulations to allow convergence.  • Check that the correct ESG file is used in final  run. | Technical provisions | * Guidelines on valuation of technical provisions: Guideline 55-60; 88 * Circular NBB\_2016\_26 “Valuation of TP” |  |  |
| **AS** | Management Actions for Health SLT business (e.g. premium adjustments): Check that modelled management actions are appropriate, realistic and consistent with company policy and historic evidence / decisions taken, compliant with legal constraints, back-tested with past years, tested in extreme scenarios, approved at board level, etc. |  | * Delegated Regulation 2015/35 article 23 * Circular NBB\_2016\_26 “Valuation of TP” |  |  |
| **AP Reference** | **Nature, timing and extent of audit/assurance procedures** | **Significant account / disclosure** | **Reference to Law of 13 March 2016, Executory Measures of the Solvency II directive and NBB guidelines** | **Done by and date** | **W/P Ref** |
| **AS** | Management Actions (asset mix, profit sharing, realization of gains, etc.):Check that modelled management actions are appropriate, realistic and consistent with company policy and historic evidence / decisions taken, compliant with legal constraints, back-tested with past years, tested in extreme scenarios, approved at board level, etc. | Technical provisions | * Guidelines on valuation of technical provisions: Guideline 41-43; Guideline 88 * Circular NBB\_2016\_26 “Valuation of TP” |  |  |
| **AS** | Policyholder actions: Where policyholder actions in extreme circumstances could have significant impacts on results, check that the company has considered these actions. Where allowance is being made, ensure that it is appropriate. | Technical provisions | * Guidelines on valuation of technical provisions: Guideline 35-37 * Circular NBB\_2016\_26 “Valuation of TP” |  |  |
| **AS** | Based on the assessment of the control risk, to be completed with procedures listed in chapter I “Working program control testing” of this document which are to be carried out by the audit team substantively (this will be the case when control risk is assessed as medium / high as a result of identified control deficiencies) | Technical provisions |  |  |  |

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| **AP Reference** | **Nature, timing and extent of audit/assurance procedures** | **Significant account / disclosure** | | **Reference to Law of 13 March 2016, Executory Measures of the Solvency II directive and NBB guidelines** | **Done by and date** | | **W/P Ref** |
|  | **Validation of model operation and assessment of results** |  | | General References on model validation and results assessment:   * Delegated Regulation 2015/35 * Guidelines on valuation of technical provisions * Law of March 13, 2016 * Circular NBB\_2016\_31 “Governance” * Circular NBB\_2017\_27 “Data Quality” * Circular NBB\_2016\_26 “Valuation of TP” * Communication NBB\_2017\_32 “Expense Modelling for TP” |  | |  |
| **VO** | Review the documented methodology and assess whether these are in line with the requirements set forth by the applicable guidelines. Particular attention is to be paid to   * Appropriateness of technical documentation * Model architecture: approach for the calculation of the best estimate, interactions between assets and liabilities that require asset modelling, approach for the stochastic valuation * Contract boundaries: are the multi-year products identified, are future premiums modelled, is the definition of contract boundary in accordance with Solvency II principles * Liabilities: products that are not captured by the model or modelled by proxy (scaling of other products), review whether these simplifications are considered as acceptable, model point grouping process, what are the options and guarantees, which cash flows have been modelled (and is it acceptable based on Solvency II principles), etc. | Technical provisions | | * Delegated Regulation 2015/35 – Article 265 * Guidelines on valuation of technical provisions: Article 85; 86 * Guidelines on contract boundaries * Circular NBB\_2016\_26 “Valuation of TP” * Compliance with Circular NBB\_2016\_24 “Contract Boundaries” |  | |  |
| **AP Reference** | **Nature, timing and extent of audit/assurance procedures** | | **Significant account / disclosure** | **Reference to Law of 13 March 2016, Executory Measures of the Solvency II directive and NBB guidelines** | | **Done by and date** | **W/P Ref** | |
|  | * Assets: which assets (e.g. only those covering the book value of liabilities modelled), how are the different type of assets modelled, how are illiquid assets and derivatives modelled, etc. | |  |  | |  |  | |
| **VO** | Assess whether the validation process for the model has been respected. Review whether independence between calculation and validation has been respected. | | Technical provisions | * Guidelines on valuation of technical provisions: Article 83-84 | |  |  | |
| **VO** | Document new products/re-priced products launched in the year, and consider how they are treated under the reporting period (for the first year, also the existing products). | | Technical provisions |  | |  |  | |
| **VO** | Review the variation analysis of calculated best estimates with the preceding period. Ensure that all items referred to in this variation analysis have assessed for reasonableness and/or reconciled to audited data. | | Technical provisions | * Law of 13 March 2016 * Delegated Regulation 2015/35 – Article 264 * Guidelines on valuation of technical provisions: Article 87 | |  |  | |
| **VO** | Review the comparison with experience performed by the company for the best estimate parameters and results of the calculations. | | Technical provisions | * Law of 13 March 2016 * Delegated Regulation 2015/35 – Article 264 * Guidelines on valuation of technical provisions: Article 87 | |  |  | |
| **VO** | Review sensitivity tests and assess the consistency of the variability of the cash flows and model outputs | | Technical provisions |  | |  |  | |
| **AP Reference** | **Nature, timing and extent of audit/assurance procedures** | | **Significant account / disclosure** | **Reference to Law of 13 March 2016, Executory Measures of the Solvency II directive and NBB guidelines** | | **Done by and date** | **W/P Ref** | |
| **VO** | Based on the assessment of the control risk, to be completed with procedures listed in chapter I “Working program control testing” of this document which are to be carried out by the audit team substantively (this will be the case when control risk is assessed as medium / high as a result of identified control deficiencies) | | Technical provisions |  | |  |  | |
|  | ***Preparation of results and reporting*** | |  | General References on preparation of results and reporting:   * Law of 13 March 2016 * Delegated Regulation 2015/35 and 2015/2450 * Guidelines on valuation of technical provisions * Law March 13, 2016 * Circular NBB\_2017\_27 “Data Quality” * Circular NBB\_2016\_26 “Valuation of TP” * Communication NBB\_2017\_32 “Expense Modelling for TP” | |  |  | |
| **PRR** | Check that the total results from the systems and the total manual liabilities sum to the total consolidated results. | | Technical provisions |  | |  |  | |
| **PRR** | Carry out an analytical review of results by product line comparing values with the previous year and other reporting methods, allowing for changes in volume. eg reconcile liabilities by product line, sample policy checks. | | Technical provisions | * Law of 13 March 2016 * Delegated Regulation 2015/35 – Article 264 * Guidelines on valuation of technical provisions: Article 87 | |  |  | |
| **PRR** | Review the QRT’s relating to technical provisions, reconcile with model output and check that entries have been applied in the correct positions consistent with the relevant principles and guidance | | Technical provisions |  | |  |  | |

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| **AP Reference** | **Nature, timing and extent of audit/assurance procedures** | **Significant account / disclosure** | **Reference to Law of 13 March 2016, Executory Measures of the Solvency II directive and NBB guidelines** | **Done by and date** | **W/P Ref** |
| **PRR** | Based on the assessment of the control risk, to be completed with procedures listed in chapter I “Working program control testing” of this document which are to be carried out by the audit team substantively (this will be the case when control risk is assessed as medium / high as a result of identified control deficiencies) | Technical provisions |  |  |  |
|  | ***Fraud-related procedures, if applicable*** |  |  |  |  |
|  | Update and amend, if appropriate, the assessment of ROSM and the rationale, and re-evaluate the planned audit/assurance procedures. |  |  |  |  |