METHODOLOGY OF THE RISK ASSESSMENT FRAMEWORK (BION) FOR INSURANCE AND REINSURANCE UNDERTAKINGS

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1. The concept of the Risk Assessment Framework (BION) for insurance and reinsurance undertakings

The **Risk Assessment Framework (BION)** for insurance and reinsurance undertakings has been performed as part of introducing the risk-based supervision system at the Polish Financial Supervision Authority (PFSA) according to the standardised approach for the supervised entities in all financial market sectors.

The **Risk Assessment Framework** is a holistic process using all the information held by the supervisory authority about the (re)insurance undertaking, including the information obtained in the course of actions related to licensing, desk research and control actions during on-site inspection in the (re)insurance undertaking, as well as inquiries/questionnaires sent to the (re)insurance undertakings. The Risk Assessment Framework has been based mainly on available information and the existing reporting system so as not to impose any additional reporting or disclosure requirements on those undertakings in relation therewith.

The objective of the process is:

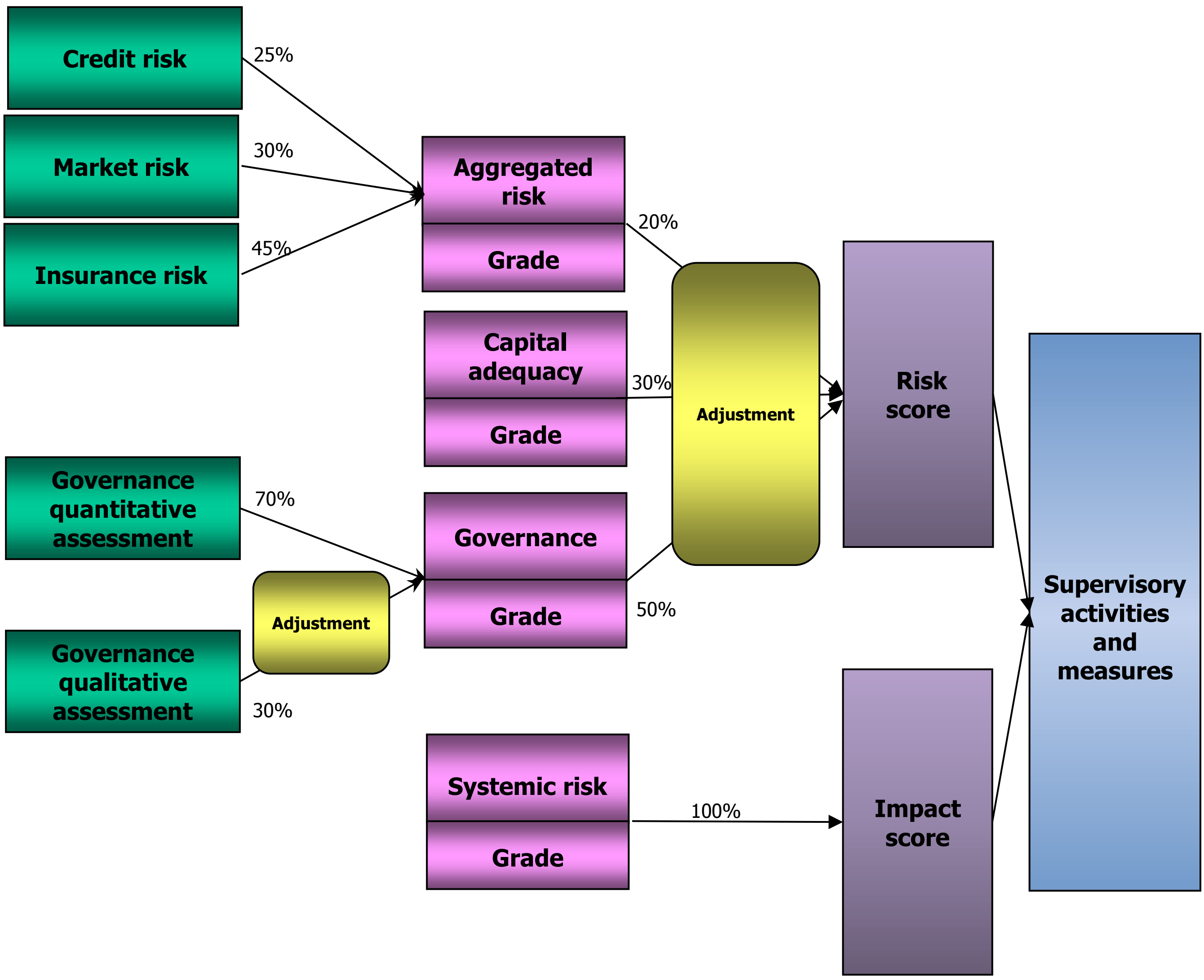
- the assessment of risk of (re)insurance undertaking,
- the assessment of the process quality of managing by (re)insurance undertaking material risks,
- the assessment of compliance of operation of the (re)insurance undertaking with relevant acts and prudential regulations,
- the identification of irregularities in the (re)insurance undertaking operations,
- effective allocation of the PFSA resources to areas and entities generating highest risk,
- preparation to the "Supervisory Review Process" provided for in Article 36 of "Solvency II" Directive[1].

The supervisory assessment focuses on the most important risk types and areas of operation of (re)insurance undertakings. Each undertaking is awarded a risk score based on assessments of key risks, capital adequacy and governance quality. Bearing in mind that the ratio-based assessment of the aforementioned factors is insufficient, the specific features of individual undertakings and their insurance products as well as the risk management system and process are also subject to the assessment as a part of the governance qualitative assessment (expert judgement). To the extent of the data held by the PFSA, this approach ensures full risk identification. The concept of Risk Assessment Framework (BION) developed by the Polish Financial Supervision aims at systematising the assessment criteria of the supervised entities applied hitherto and at introducing elements of the system of supervision that are exercised on the basis of assessment of risk identified in their operations. Naturally, many ratios or criteria of assessment included in the Risk Assessment Framework methodology are of uniform nature for all the supervised entities in the insurance sector. Likewise, some of them coincide with the ratios or criteria used in the course of assessment of other financial market entities supervised by the PFSA since they are based on general principles of financial analysis and sector-specific regulations.

As a result of the conducted Risk Assessment Framework, each (re)insurance undertaking is awarded a risk score and an impact score, which determine supervisory activities and measures (based on proportionality principle), including on-site inspection.

[1] *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)* – Official Journal of the European Union L No. 335, 17 December 2009

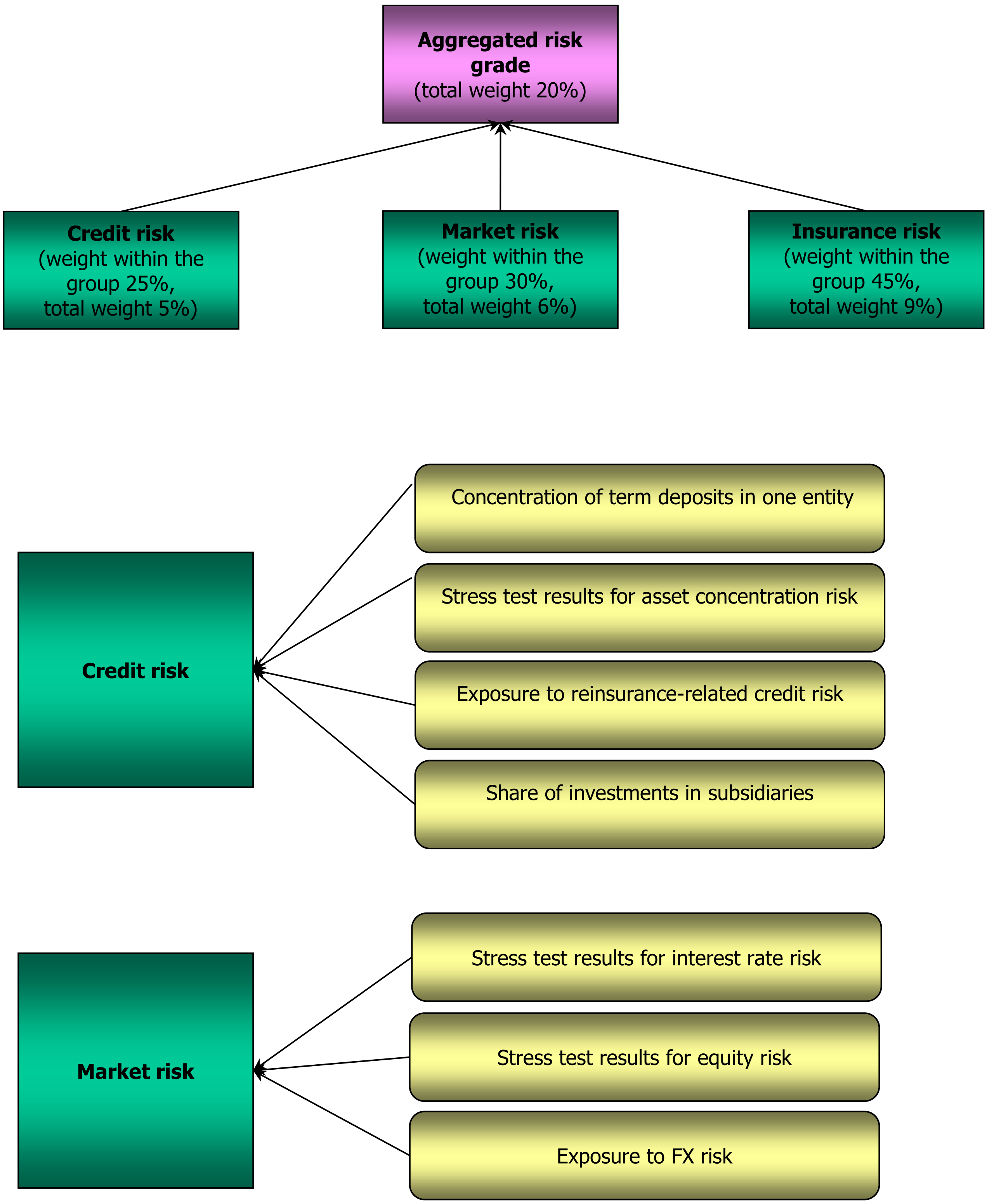
Diagram 1. Risk Assessment Framework (BION) for insurance and reinsurance undertakings



Individual assessment areas are described in detail in Chapters 3 and 4 hereof while the possible necessary supervisory activities and measures related with the irregularities identified in the assessment process are presented in Chapter 5.

The diagrams below present only the accounting treatment for individual types of risk or ratios in the assessment of a particular group and in the final assessment.

Diagram 2. Assessment for aggregated risk area



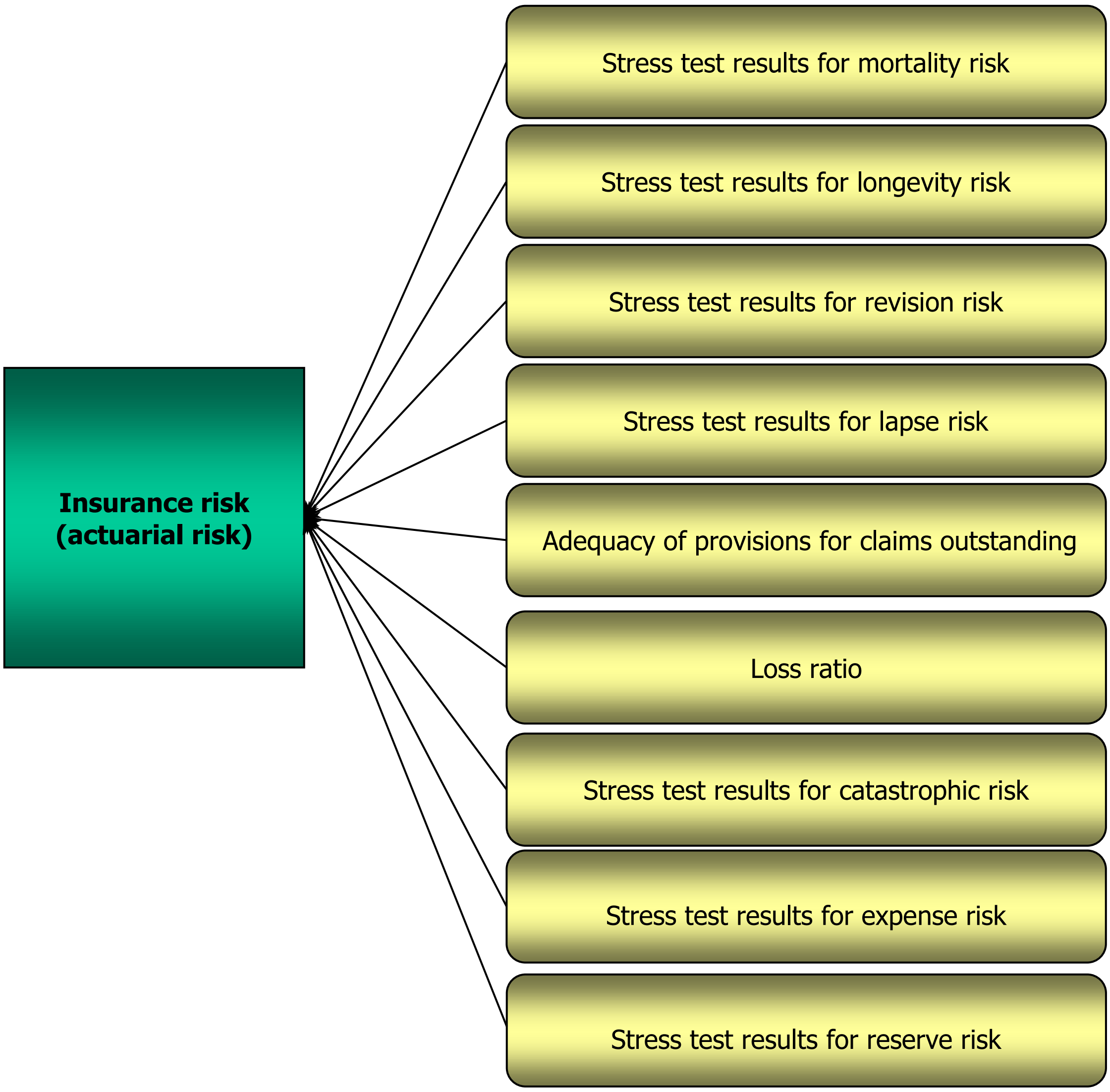

Insurance risk (actuarial risk)
Stress test results for mortality risk
Stress test results for longevity risk
Stress test results for revision risk
Stress test results for lapse risk
Adequacy of provisions for claims outstanding
Loss ratio
Stress test results for catastrophic risk
Stress test results for expense risk
Stress test results for reserve risk

Diagram 3. Assessment of capital adequacy

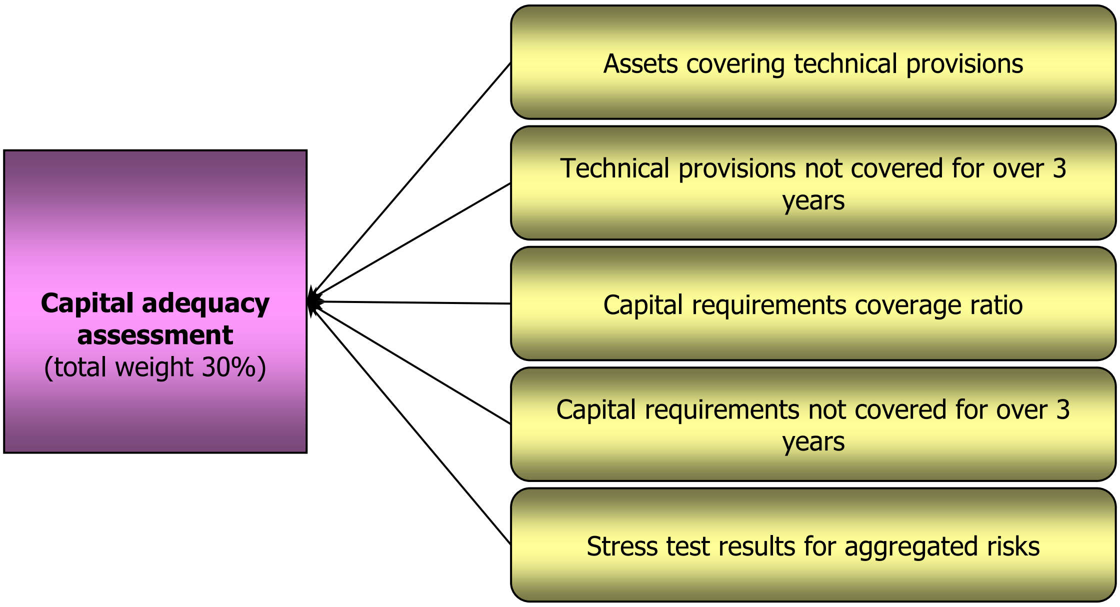
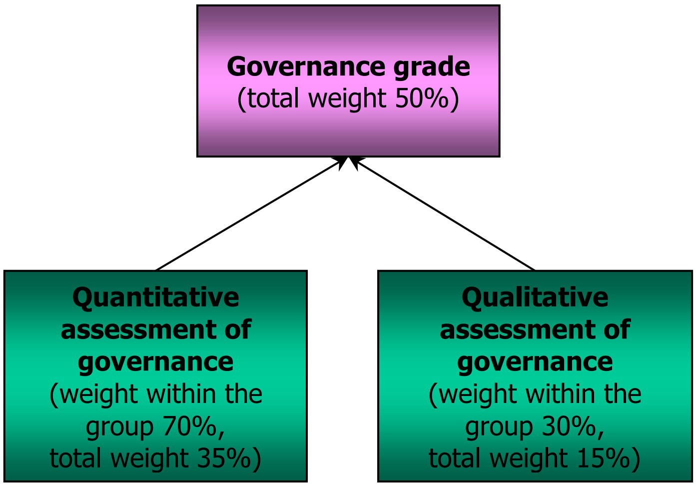
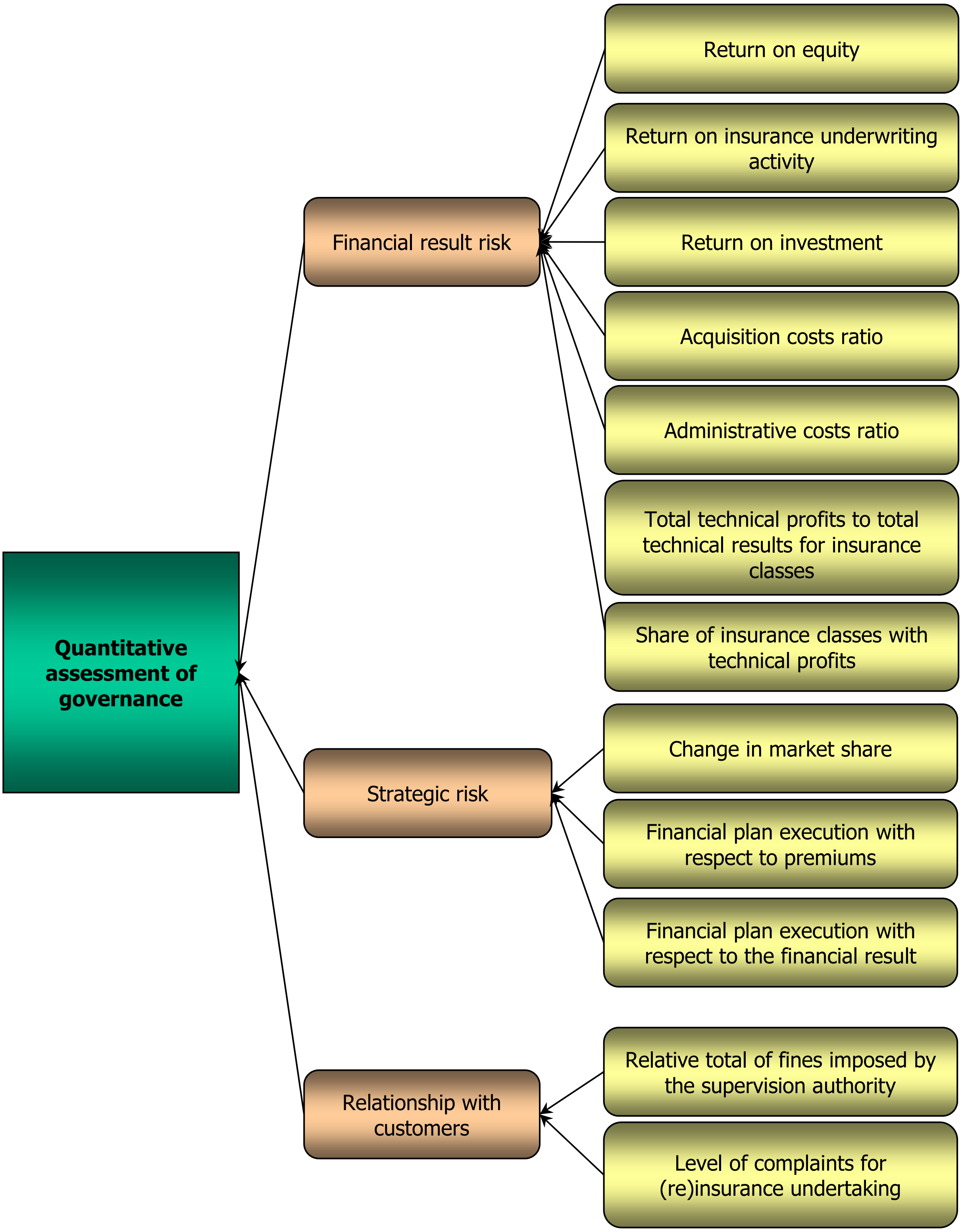


Diagram 4. Assessment of governance




Quantitative assessment of governance
Financial result risk
Return on equity
Return on insurance underwriting activity
Return on investment
Acquisition costs ratio
Administrative costs ratio
Total technical profits to total technical results for insurance classes
Share of insurance classes with technical profits
Strategic risk
Change in market share
Financial plan execution with respect to premiums
Financial plan execution with respect to the financial result
Relationship with customers
Relative total of fines imposed by the supervision authority
Level of complaints for (re)insurance undertaking

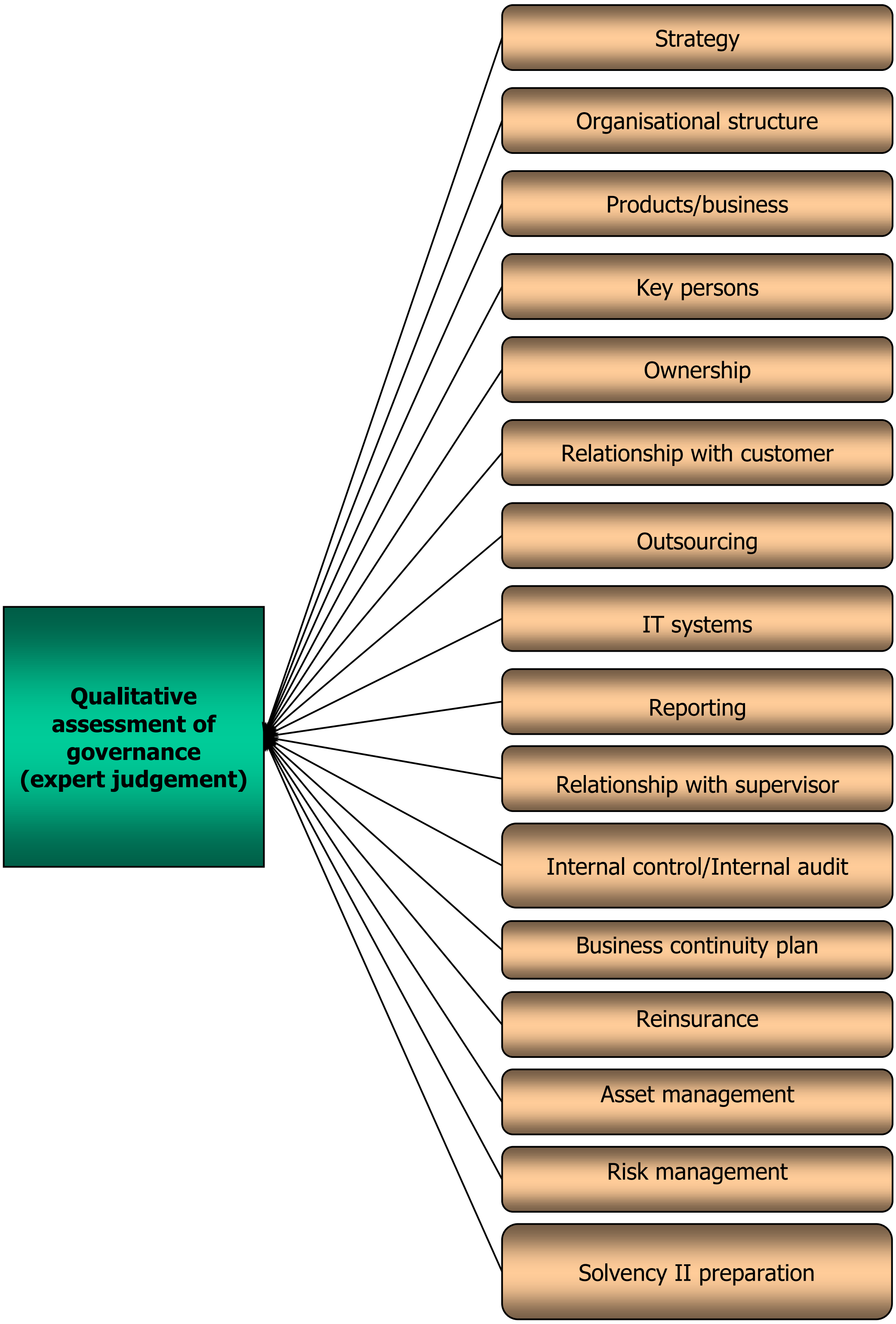
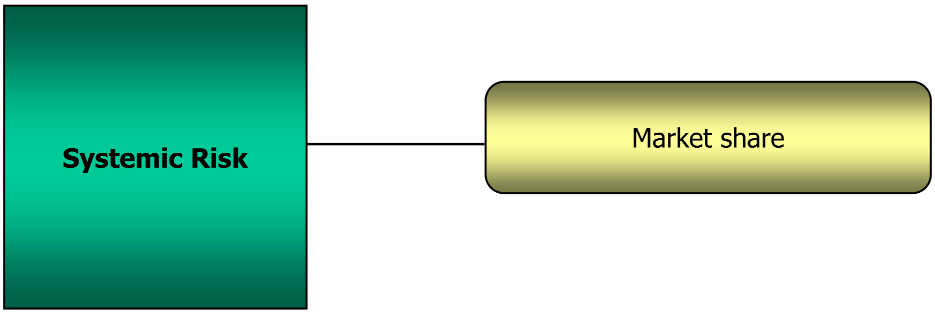

Qualitative assessment of governance (expert judgement)
Strategy
Organisational structure
Products/business
Key persons
Ownership
Relationship with customer
Outsourcing
IT systems
Reporting
Relationship with supervisor
Internal control/Internal audit
Business continuity plan
Reinsurance
Asset management
Risk management
Solvency II preparation

Diagram 5. Assessment for systemic risk area



The Risk Assessment Framework (BION) is performed at least once a year. When taking the decision to perform BION more frequently than once a year the following criteria need to be taken into account, among other things:

- assessment of (re)insurance undertaking risk based on the results of analyses of the financial standing,
- results of the previous Risk Assessment Framework,
- occurrence of new circumstances (events, new information) from the last Risk Assessment Framework that may materially impact the grade of the (re)insurance undertaking.

The supervisory authority will inform the individual (re)insurance undertakings about the risk score and the impact score.

The Risk Assessment Framework performed by the supervisory authority is an additional supervisory tool. In the future, the Risk Assessment Framework will be adequately adapted to the new supervision regime and it will be one of the elements of the process of exercising supervision according to "Solvency II" framework.

2. Map of risk types and risk definitions

I. Aggregated risk assessment

1. Credit risk – risk of unexpected default or credit capacity deterioration that could lead to default.
   - Concentration risk – risk of credit capacity deterioration that may lead to default as a result of becoming dependent on (no diversification) or excessive exposure towards one entity or related entities.
   - Counterparty risk – risk of default by counterparty.
   - Risk of investment in subsidiaries – risk of capital exposure impairment and of loss due to the obligation to provide support for the subsidiary.
2. Market risk – risk of decrease in value of assets, increase in liabilities or adverse change of the financial result due to sensitivity to fluctuations of market parameters (market prices).
   - Interest rate risk – risk of decrease in value of assets, increase in liabilities or an adverse change of the financial result due to sensitivity to fluctuations of interest rates.
   - Financial instruments' price risk – risk of decrease in value of assets, increase in liabilities or an adverse change of the financial result due to sensitivity to fluctuations of financial instruments' prices.
   - FX risk – risk of decrease in value of assets, increase in liabilities or an adverse change of the financial result due to sensitivity to fluctuations of currency exchange rates.
3. Insurance risk – risk of loss or an adverse change in the value of liabilities due to changes of the level, trend or volatility of indicators adopted for estimation of those liabilities or extreme/ exceptional events.
   - Mortality risk – risk due to an increase in the mortality rate.
   - Longevity risk – risk due to a decrease in the mortality rate.
   - Revision risk – risk of a change of annuities amount due to changes in legal environment or health status of policyholders.
   - Lapse risk – risk of default on current liabilities due to the counterparty's right to change the cash flow amounts and timing.
   - Loss development risk – risk due to fluctuations in frequency and amounts of losses under insured events (for non-life insurance).
   - Catastrophic risk – risk due to material uncertainty of assumptions concerning valuation and provisioning related to exceptional events that cause high-value losses.
   - Expense risk – risk due to a change in the level, trend or fluctuations of expenses incurred for servicing insurance agreements or reinsurance agreements.

II. Capital adequacy assessment – risk of failure to ensure the capital sufficient to absorb unexpected losses.

4. Capital management risk – risk of capital levels being inadequate to the risk underlying activity as well as risk of a lack of strategy in terms of planning, structure and sources of capital acquisition or of its improper execution (inclusive of not generating adequate financial result).
5. Insolvency risk – risk of the capital decreasing below the level necessary to cover the losses.

III. Governance assessment – risk related to improper management, insufficient identification and mitigation of risk underlying the activity, lack of internal control or its insufficient functioning, improper application of internal procedures or failure to observe them.

1. Quantitative assessment of governance:

   6. Financial result risk – risk of generating the financial result below the requirements of conducting or developing activity.
   7. Strategic risk – risk related to taking unfavourable or erroneous strategic decisions, failure to execute the adopted strategy or its defective execution and changes in the external environment and improper reaction to those changes.
   8. Competition risk – risk of market changes (competition conditions) having unfavourable impact on the entity.
   9. Model risk – risk of implementing incorrectly developed (defined) models, tariffs or parameters, improper use of models or lack of the models' necessary updates.
   10. Data risk – risk due to use of incorrect, not credible or incomplete data.
   11. Relationship with customers – risk due to improper or incorrect functioning of tools and procedures of significance in managing relations with customers.

2. Qualitative assessment of governance (expert judgement):

   12. Operational risk – risk of a loss arising from inadequate or failed internal processes, performance personnel or systems, or from external events.
   13. Product risk (customer complaints risk) – risk due to the sale of a product (service) that does not meet the requirements and needs of customers, is incompliant with the law and regulations, generates additional risks (for (re)insurance undertaking and its customers) or is not sufficiently supported by processes in the (re)insurance undertaking or by its employees.
   14. HR risk – risk of disturbances in the entity's operation due to its inability to acquire and retain properly qualified employees and managers.
   15. Risk related to management of related entities – risk due to improper or insufficient principal supervision.
   16. Reputation risk – risk related to negative reception of the entity's image by customers, counterparties, investors, shareholders, supervisors, regulators and the general public.
   17. Outsourcing risk – risk of negative impact of an external entity on continuity, integrity or quality of functioning of the entity, its assets or employees.
   18. Technological and technical risk – risk of disruptions in the entity's operation due to disturbances of ICT and IT systems operation.
   19. Reporting risk – risk due to a lack of management information or its scope, low management information reliability and relevance or improperly organised reporting processes (including definitions of sources, contractors and information recipients).
   20. Internal control risk – risk due to inadequate controls of the entity.
   21. External risk (business continuity) – risk of inability to continue conducting business by the entity or of incurring losses due to extraordinary events such as earthquakes, fires, floods, acts of terror, lack of access to the headquarters (place of conducting business) or utilities.
   22. Process continuity risk – risk of disturbances in operation of the entity or a risk of its ineffective operation due to improper or insufficient process organisation, their discontinuity, improper segregation of tasks and powers or not ensuring adequate resources for execution of the defined or necessary processes.
   23. Liquidity risk – risk of default on current liabilities due to cash flow mismatch.

24. Risk of asset-liability mismatch – risk of default on current liabilities related to discrepancies in the amount and timing of cash flows due to assets and liabilities maturity.
25. Settlement risk – risk of default on current liabilities due to limitations on funds transfer.
26. Legal risk – risk related to changes of law and regulation, compliance with them, enforceability of contracts and the associated responsibility.

IV. Systemic risk – risk related to possible impact of financial stress and potential insolvency of a single (re)insurance undertaking on the insurance market or financial market participants.

3. Principles of risk assessment according to Risk Assessment Framework (BION) for Insurance and Reinsurance Undertakings[2]

3.1 Aggregated risk assessment

3.1.1 Credit risk

Credit risk – risk of unexpected default or credit capacity deterioration that could lead to default.

1. Concentration risk – risk of credit capacity deterioration that may lead to a default as a result of becoming dependent on one entity or related entities (due to no diversification) or excessive exposure towards them.

1.	Concentration of term deposits in one entity

$$DC = \begin{cases} 0 & , if\ \forall i\ DC'_i \le 5\% \\ \sum_{DC'_i > 5\%} DC'_i \dfrac{SG}{ACR} & , if\ \exists i\ DC'_i > 5\% \end{cases}$$

where:

$DC'_i = \frac{Total\ term\ deposits\ in\ entity\ i}{Total\ assets}$

ACR = additional capital requirement[3]

SG = absolute value of shortage of own funds to cover additional capital requirement (in case of surplus of own funds to cover additional capital requirement SG = 0)

Grades:

***1**, when DC ratio = 0.00%*
***4**, when DC ratio > 0.00%*

2.	Stress test results for asset concentration risk

- Small mutual insurance undertakings:

$$ST_{conc} = 1 - \frac{Equity\ after\ stress}{Equity\ before\ stress}$$

- Other (re)insurance undertakings:

$$ST_{conc} = \frac{Own\ funds\ after\ stress}{\max(Solvency\ margin\ after\ stress\ ;\ Guarantee\ fund\ after\ stress)}$$

Grades for small mutual undertaking:

***1**, when ST_{conc} ratio is within the range [0.00% ; 25.00%)*
***2**, when ST_{conc} ratio is within the range [25.00% ; 50.00%)*
***3**, when ST_{conc} ratio is within the range [50.00% ; 100.00%)*
***4**, when ST_{conc} ratio ≥ 100.00%*

[2] Assessment of individual ratios is performed based on the value thereof, rounded up to two decimal places.

[3] Methodology of calculating *ACR* based on http://www.knf.gov.pl/Images/QIS4_Aneks_tcm75-9979.pdf

Grades for other (re)insurance undertakings:

1, when ST_{conc} ratio *≥ 110.00%*
2, when ST_{conc} ratio *is within the range [100.00% ; 110.00%)*
3, when ST_{conc} ratio *is within the range [0.00% ; 100.00%)*
4, when *Own funds* $_{after\ stress}$ *<0.00*

The grade cannot be better than 3 if after the stress test there are no assets covering technical provisions in the (re)insurance undertaking.

Moreover, the grade will be revised 1 level up, if all entities stressed in stress test are under supervision of PFSA and their risk was assessed as low in the last Risk Assessment Framework (BION) (a grade under the last Risk Assessment Framework (BION) was good).

2. Counterparty risk – risk of default by counterparty.

3.	Exposure to reinsurance-related credit risk

$$RSP = \frac{RSTP + RR - DRR}{TP_{gross}}$$

where:

RSTP – reinsurer's share in technical provisions

RR – reinsurance receivables

DRR – deposits received from reinsurers

TP_{gross} – gross technical provisions

Grades:

1, when *RSP* ratio *≤ 5.00%*
2, when *RSP* ratio *is within the range (5.00% ; 15.00%]*
3, when *RSP* ratio *is within the range (15.00% ; 40.00%]*
4, when *RSP* ratio *> 40.00%*

Moreover, the grade will be revised two levels up in case two of the following conditions are met or one level up in case one of the following conditions is met:

- when the share of the biggest reinsurer in technical provisions does not exceed 50% of share of all reinsurers in technical provisions, while of the three biggest reinsurers - 80% (proper reinsurance diversification), provided that the reinsurers' ratings about the share of technical provisions in reinsurance of above 10% are at least BBB (proper reinsurers' ratings) or risk of these reinsurers was assessed as low in the last Risk Assessment Framework (BION) (a grade under the last Risk Assessment Framework (BION) was good).
- when as a result of the stress tests performed for the default risk of the reinsurer of the (re)insurance undertaking there is coverage of technical provisions with assets and the level of capital requirements coverage ratio is above 110%.

3. Risk of investment in subsidiaries – risk of capital exposure impairment and of loss due to the obligation to provide support for the subsidiary.

4.	Share of investments in subsidiaries

$$ISU = \frac{Investments\ in\ subsidiaries}{Investments\ (other\ than\ held\ for\ unit - linked\ products)}$$

Grades:

1, when *ISU* ratio *≤1.00%*
2, when *ISU* ratio *is within the range (1.00% ; 5.00%]*
3, when *ISU* ratio *is within the range (5.00% ; 10.00%]*
4, when *ISU* ratio *> 10.00%*

Moreover, the grade will be revised two levels up in case two of the following conditions are met or one level up in case one of the following conditions is met:

- when the share of investments in subsidiaries supervised by the PFSA is at least 50% of the total investments in subsidiaries and subsidiaries meets the required solvency levels (by the law or supervisory guidelines e.g. as regards investment concentration),
- when the share of investments in subsidiaries supervised by the PFSA is at least 50% of the total investments in subsidiaries and their risk was assessed as low during last Risk Assessment Framework (BION)(a grade under the last Risk Assessment Framework (BION) was good).

3.1.2 Market risk

Market risk – risk of decrease in value of assets, increase in liabilities or an adverse change of the financial result due to sensitivity to fluctuations of market parameters (market prices).

1. Interest rate risk – risk of decrease in value of assets, increase in liabilities or an adverse change of the financial result due to sensitivity to fluctuations of interest rates.

5.	**Stress test results for interest rate risk**

- Small mutual insurance undertakings:

$$ST_{interest} = 1 - \frac{Equity\ after\ stress}{Equity\ before\ stress}$$

- Other (re)insurance undertakings:

$$ST_{interest} = \frac{Own\ funds\ after\ stress}{max(Solvency\ margin\ after\ stress\ ;\ Guarantee\ fund\ after\ stress)}$$

Grades for small mutual undertaking:

1, when $ST_{interest}$ ratio *is within the range [0.00% ; 25.00%)*
2, when $ST_{interest}$ ratio *is within the range [25.00% ; 50.00%)*
3, when $ST_{interest}$ ratio *is within the range [50.00% ; 100.00%)*
4, when $ST_{interest}$ ratio *≥ 100.00%*

Grades for other (re)insurance undertakings:

1, when $ST_{interest}$ ratio *≥ 110.00%*
2, when $ST_{interest}$ ratio *is within the range [100.00% ; 110.00%)*
3, when $ST_{interest}$ ratio *is within the range [0.00% ; 100.00%)*
4, when $Own\ funds_{after\ stress} < 0.00$

Moreover, the grade cannot be better than 3 if after the stress test there are no assets covering technical provisions in the (re)insurance undertaking.

2. Financial instruments' price risk – risk of decrease in value of assets, increase in liabilities or an adverse change of the financial result due to sensitivity to fluctuations of financial instruments' prices.

6.	Stress test results for equity risk

- Small mutual insurance undertakings:

$$ST_{stock} = 1 - \frac{Equity\ after\ stress}{Equity\ before\ stress}$$

- Other (re)insurance undertakings:

$$ST_{stock} = \frac{Own\ funds\ after\ stress}{max(Solvency\ margin\ after\ stress\ ;\ Guarantee\ fund\ after\ stress)}$$

Grades for small mutual undertaking:

***1**, when ST_{stock} ratio is within the range [0.00% ; 25.00%)*
***2**, when ST_{stock} ratio is within the range [25.00% ; 50.00%)*
***3**, when ST_{stock} ratio is within the range [50.00% ; 100.00%)*
***4**, when ST_{stock} ratio ≥ 100%*

Grades for other (re)insurance undertakings:

***1**, when ST_{stock} ratio ≥ 110.00%*
***2**, when ST_{stock} ratio is within the range [100.00% ; 110.00%)*
***3**, when ST_{stock} ratio is within the range [0.00% ; 100.00%)*
***4**, when Own funds $_{after\ stress}$ <0.00*

Moreover, the grade cannot be better than 3 if after the stress test there are no assets covering technical provisions in the (re)insurance undertaking.

3. FX risk – risk of decrease in value of assets, increase in liabilities or an adverse change of the financial result due to sensitivity to fluctuations of currency exchange rates.

7.	Exposure to FX risk

$$EQR = \frac{\sum_{i \neq PLN} |A_i - L_i|}{EQ}$$

where:

A_i – assets in the currency *i* converted into PLN

L_i – liabilities in the currency *i* converted into PLN

EQ – equity

Grades:

***1**, when EQR ratio ≤ 1.00%*
***2**, when EQR ratio is within the range (1.00% ; 5.00%]*
***3**, when EQR ratio is within the range (5.00% ; 15.00%]*
***4**, when EQR ratio > 15.00%*

Moreover, the grade will be revised one level up, if, as a result of stress tests for FX risk, there is coverage of technical provisions with assets and the level of capital requirements coverage ratio is above 110%.

3.1.3 Insurance risk

Insurance risk (actuarial risk) – risk of loss or an adverse change in the value of liabilities due to changes of the level, trend or volatility of indicators adopted for estimation of those liabilities or extreme and/or exceptional events.

1. Mortality risk – risk due to the increase in the mortality rate.

8.	Stress test results for mortality risk (only for life insurance undertakings)

- Small mutual insurance undertakings:

$$ST_{qx} = 1 - \frac{\text{Equity after stress}}{\text{Equity before stress}}$$

- Other (re)insurance undertakings:

$$ST_{qx} = \frac{\text{Own funds after stress}}{\max(\text{Solvency margin after stress ; Guarantee fund after stress})}$$

Grades for small mutual undertaking:

1, when ST_{qx} ratio *is within the range [0.00% ; 25.00%)*
2, when ST_{qx} ratio *is within the range [25.00% ; 50.00%)*
3, when ST_{qx} ratio *is within the range [50.00% ; 100.00%)*
4, when ST_{qx} ratio *≥ 100%*

Grades for other (re)insurance undertakings:

1, when ST_{qx} ratio *≥ 110.00%*
2, when ST_{qx} ratio *is within the range [100.00% ; 110.00%)*
3, when ST_{qx} ratio *is within the range [0.00% ; 100.00%)*
4, when *Own funds* $_{\text{after stress}}$ *<0.00*

Moreover, the grade cannot be better than 3 if after the stress test there are no assets covering technical provisions in the (re)insurance undertaking.

2. Longevity risk – risk due to the decrease in the mortality rate.

9.	Stress test results for longevity risk

- Small mutual insurance undertakings:

$$ST_{px} = 1 - \frac{\text{Equity after stress}}{\text{Equity before stress}}$$

- Other (re)insurance undertakings:

$$ST_{px} = \frac{\text{Own funds after stress}}{\max(\text{Solvency margin after stress ; Guarantee fund after stress})}$$

Grades for small mutual insurance undertakings:

1, when ST_{px} ratio *is within the range [0.00% ; 25.00%)*
2, when ST_{px} ratio *is within the range [25.00% ; 50.00%)*
3, when ST_{px} ratio *is within the range [50.00% ; 100.00%)*
4, when ST_{px} ratio *≥ 100.00%*

Grades for other (re)insurance undertakings:

1, when ST_{px} ratio *≥ 110.00%*
2, when ST_{px} ratio *is within the range [100.00% ; 110.00%)*

3, when ST_{px} ratio *is within the range [0.00% ; 100.00%)*
4, when *Own funds* $_{after\ stress}$ *< 0.00*

Moreover, the grade cannot be better than 3 if after the stress test there are no assets covering technical provisions in the (re)insurance undertaking.

3. ***Revision risk*** – risk of change of annuities amount due to changes in legal environment or health state of policyholders.

10.	Stress test results for revision risk

- Small mutual insurance undertakings:

$$ST_{rev} = 1 - \frac{Equity\ after\ stress}{Equity\ before\ stress}$$

- Other (re)insurance undertakings:

$$ST_{rev} = \frac{Own\ funds\ after\ stress}{max(Solvency\ margin\ after\ stress\ ;\ Guarantee\ fund\ after\ stress)}$$

Grades for small mutual insurance undertakings:

1, when ST_{rev} ratio *is within the range [0.00% ; 25.00%)*
2, when ST_{rev} ratio *is within the range [25.00% ; 50.00%)*
3, when ST_{rev} ratio *is within the range [50.00% ; 100.00%)*
4, when ST_{rev} ratio *≥ 100.00%*

Grades for other (re)insurance undertakings:

1, when ST_{rev} ratio *≥ 110.00%*
2, when ST_{rev} ratio *is within the range [100.00% ; 110.00%)*
3, when ST_{rev} ratio *is within the range [0.00% ; 100.00%)*
4, when *Own funds* $_{after\ stress}$ *<0.00*

Moreover, the grade cannot be better than 3 if after the stress test there are no assets covering technical provisions in the (re)insurance undertaking.

4. Lapse risk – risk of default on current liabilities due to the counterparty's right to change the cash flow amounts and timing.

11.	Stress test results for lapse risk (only for life insurance undertakings)

- Small mutual insurance undertakings:

$$ST_{lapse} = 1 - \frac{Equity\ after\ stress}{Equity\ before\ stress}$$

- Other (re)insurance undertakings:

$$ST_{lapse} = \frac{Own\ funds\ after\ stress}{max(Solvency\ margin\ after\ stress\ ;\ Guarantee\ fund\ after\ stress)}$$

Grades for small mutual insurance undertakings:

1, when ST_{lapse} ratio *is within the range [0.00% ; 25.00%)*
2, when ST_{lapse} ratio *is within the range [25.00% ; 50.00%)*
3, when ST_{lapse} ratio *is within the range [50.00% ; 100.00%)*
4, when ST_{lapse} ratio *≥ 100.00%*

Grades for other (re)insurance undertakings:

1, when ST_{lapse} ratio *≥ 110.00%*
2, when ST_{lapse} ratio *is within the range [100.00% ; 110.00%)*
3, when ST_{lapse} ratio *is within the range [0.00% ; 100.00%)*
4, when *Own funds* $_{after\ stress}$ *<0.00*

Moreover, the grade cannot be better than 3 if after the stress test there are no assets covering technical provisions in the (re)insurance undertaking.

5. Loss development risk – risk due to fluctuations in frequency and amounts of losses under insured events (under non-life insurance).

12.	Adequacy of provisions for claims outstanding (only for non-life insurance undertakings)

$$SRS = \sum_{i=-3}^{-1} \frac{GC_{i;i+1} + PGCO_{i;i+1}}{PGCO_{i;i}} * \omega_i$$

where:

$GC_{i;j}$ – gross claims under incurred losses by year *i* (inclusively) and paid in year *j*

$PGCO_{i;j}$ – provision for gross claims outstanding under incurred losses by year *i* (inclusive) as at the end of year *j*

$$\omega_i = \begin{cases} \frac{1}{6}, when\ i = -3 \\ \frac{2}{6}, when\ i = -2 \\ \frac{3}{6}, when\ i = -1 \end{cases}, \textit{ or}$$

$$\omega_i = \begin{cases} \frac{1}{3}, when\ i = -2 \\ \frac{2}{3}, when\ i = -1 \end{cases}, \textit{ if } PGCO_{-3;-3}=0, \textit{ or}$$

$\omega_{-1} = 1,$ *, if* $PGCO_{-3;-3}=0$ *and* $PGCO_{-2;-2}=0$

If $PGCO_{i;i} = 0$, then *i*-element of the sum is not taken into account.

Grades:

1, when *90.00% ≤ SRS ≤ 120.00%* or when the (re)insurance undertaking started operation in a given year
2, when *70.00% ≤ SRS < 90.00%* or when *120.00% < SRS ≤ 140.00%*
3, when *50.00% ≤ SRS < 70.00%* or when *140.00% < SRS ≤ 200.00%*
4, otherwise

13.	Loss ratio (only for non-life (re)insurance undertakings)

$$LR = \frac{Claims\ for\ last\ 12\ months}{Premium\ earned - net\ of\ reinsurance\ for\ last\ 12\ months}$$

Grades:

1, when *LR* ratio *≤ 30.00%*
2, when *LR* ratio *is within the range (30.00% ; 65.00%]*
3, when *LR* ratio *is within the range (65.00% ; 80.00%]*
4, when *LR* ratio *> 80.00% or Premium earned - net of reinsurance* $_{for\ last\ 12\ months}$ *<0*

14.	Stress test results for reserve risk (only for non-life (re)insurance undertakings)

- Small mutual insurance undertakings:

  - $$ST_{reserve} = 1 - \frac{Equity\ after\ stress}{Equity\ before\ stress}$$

- Other (re)insurance undertakings:

$$ST_{reserve} = \frac{Own\ funds\ after\ stress}{max(Solvency\ margin\ after\ stress\ ;\ Guarantee\ fund\ after\ stress)}$$

Grades for small mutual insurance undertakings:

1, when $ST_{reserve}$ ratio *is within the range [0.00% ; 25.00%)*
2, when $ST_{reserve}$ ratio *is within the range [25.00% ; 50.00%)*
3, when $ST_{reserve}$ ratio *is within the range [50.00% ; 100.00%)*
4, when $ST_{reserve}$ ratio *≥ 100.00%*

Grades for other (re)insurance undertakings:

1, when $ST_{reserve}$ ratio *≥ 110.00%*
2, when $ST_{reserve}$ ratio *is within the range [100.00% ; 110.00%)*
3, when $ST_{reserve}$ ratio *is within the range [0.00% ; 100.00%)*
4, when *Own funds* $_{after\ stress}$ *<0.00*

Moreover, the grade cannot be better than 3 if after the stress test there are no assets covering technical provisions in the (re)insurance undertaking.

6. Catastrophic risk – risk due to material uncertainty of assumptions concerning valuation and provisioning related to exceptional events that cause high-value losses.

15.	Stress test results for catastrophic risk (only for non-life (re)insurance undertakings)

- Small mutual insurance undertakings:

$$ST_{cat} = 1 - \frac{Equity\ after\ stress}{Equity\ before\ stress}$$

- Other (re)insurance undertakings:

$$ST_{cat} = \frac{Own\ funds\ after\ stress}{max(Solvency\ margin\ after\ stress\ ;\ Guarantee\ fund\ after\ stress)}$$

Grades for small mutual insurance undertakings:

1, when ST_{cat} ratio *is within the range [0.00% ; 25.00%)*
2, when ST_{cat} ratio *is within the range [25.00% ; 50.00%)*
3, when ST_{cat} ratio *is within the range [50.00% ; 100.00%)*
4, when ST_{cat} ratio *≥ 100.00%*

Grades for other (re)insurance undertakings:

1, when ST_{cat} ratio *≥ 110.00%*
2, when ST_{cat} ratio *is within the range [100.00% ; 110.00%)*
3, when ST_{cat} ratio *is within the range [0.00% ; 100.00%)*

4, when *Own funds* $_{after\ stress}$ *<0.00*

Moreover, the grade cannot be better than 3 if after the stress test there are no assets covering technical provisions in the (re)insurance undertaking.

7. Expense risk – risk due to a change in the level, trend or fluctuations of expenses incurred for servicing insurance agreements or reinsurance agreements.

16.	Stress test results for expense risk

- Small mutual insurance undertakings:

$$ST_{expenses} = 1 - \frac{Equity\ after\ stress}{Equity\ before\ stress}$$

- Other (re)insurance undertakings:

$$ST_{expenses} = \frac{Own\ funds\ after\ stress}{max(Solvency\ margin\ after\ stress\ ;\ Guarantee\ fund\ after\ stress)}$$

Grades for small mutual insurance undertakings:

1, when $ST_{expenses}$ ratio *is within the range [0.00% ; 25.00%)*
2, when $ST_{expenses}$ ratio *is within the range [25.00% ; 50.00%)*
3, when $ST_{expenses}$ ratio *is within the range [50.00% ; 100.00%)*
4, when $ST_{expenses}$ ratio *≥ 100.00%*

Grades for other (re)insurance undertakings:

1, when $ST_{expenses}$ ratio *≥ 110.00%*
2, when $ST_{expenses}$ ratio *is within the range [100.00% ; 110.00%)*
3, when $ST_{expenses}$ ratio *is within the range [0.00% ; 100.00%)*
4, when *Own funds* $_{after\ stress}$ *<0.00*

Moreover, the grade cannot be better than 3 if after the stress test there are no assets covering technical provisions in the (re)insurance undertaking.

3.2 Capital adequacy assessment

Capital adequacy risk – risk of failure to ensure the capital sufficient to absorb unexpected losses. Risk of capital levels being inadequate to the risk underlying activity as well as risk of a lack of strategy in terms of planning, structure and sources of capital acquisition or of its improper execution (inclusive of not generating adequate financial result).

17.	Assets covering technical provisions

- Life (re)insurance undertakings:

$$TPC = \varpi \cdot m_{non\,unit-linked} + (1-\varpi) \cdot m_{unit-linked}$$

where:

$$\omega = \frac{Gross\ technical\ provisions - non\ unit - linked}{Gross\ technical\ provisions}$$

$$m_{non\ unit-linked} = \begin{cases} 1, when\ TPC_{non\ unit-linked} \geq\ 130\% \\ 2, when\ TPC_{non\ unit-linked} \in [105\%; 130\%) \\ 3, when\ TPC_{non\ unit-linked} \in [100\%; 105\%) \\ 4, when\ TPC_{non\ unit-linked} < 100\% \end{cases}$$

$$m_{unit-linked} = \begin{cases} 1, & when\ TPC_{unit-linked} \geq 100.00\% \\ 4, & when\ TPC_{unit-linked} < 100.00\% \end{cases}$$

$$TPC_{non\ unit-linked} = \frac{Assets\ covering\ technical\ provisions -\ non\ unit - linked}{Gross\ technical\ provisions -\ non\ unit - linked\ _t}$$

$$TPC_{unit-linked} = \frac{Assets\ covering\ technical\ provisions - unit - linked}{Gross\ technical\ provisions -\ unit - linked}$$

- *Non-life (re)insurance undertakings:*

$$TPC = \frac{Assets\ covering\ technical\ provisions}{Gross\ technical\ provisions}$$

Grades for life (re)insurance undertakings:

***1**, when ratio TPC < 1.50*
***2**, when ratio TPC is within the range [1.50 ; 2.50)*
***3**, when ratio TPC is within the range [2.50 ; 3.50)*
***4**, when ratio TPC ≥ 3.50*

Moreover, if *Assets covering technical provisions*$_{non\ unit\text{-}linked}$ + *Assets covering technical provisions*$_{unit\text{-}linked}$ < *Gross technical provisions*$_{non\ unit\text{-}linked}$ + *Gross technical provisions*$_{unit\text{-}linked}$, grade 4 is awarded.

Grades for non-life (re)insurance undertakings:

***1**, when ratio TPC ≥130.00%*
***2**, when ratio TPC is within the range [110.00% ; 130.00%)*
***3**, when ratio TPC is within the range [100.00% ; 110.00%)*
***4**, when ratio TPC < 100.00%*

18.	Technical provisions non-coverage with relevant assets over the last 3 years

$$TPNC = \sum_{t=-35}^{-1} m_t \cdot \varpi_t$$

$$m_t = \begin{cases} 1, & when\ PC_t < 100.00\% \\ 0, & otherwise \end{cases}$$

$$PC_t = \frac{Assets\ covering\ technical\ provisions_t}{Technical\ provisions_t}$$

$$\omega_{t=} \begin{cases} 1, when\ t\epsilon[-35;\ -24] \\ 2, when\ t\epsilon[-23; -12] \\ 3, when\ t\epsilon[-11; -1] \end{cases}$$

The assessment covers the results for the last 35 months (without the reporting period for which the assessment is performed). Moreover, the results of individual months are weighted so that the most up-to-date information has the biggest weight in the analysis. For life (re)insurance undertakings the total technical provisions and total assets covering technical provisions (both unit-linked and life excluding unit-linked) were taken into account.

Grades:

***1**, when TPNC ratio = 0*
***2**, when TPNC ratio = 1 or TRNC ratio = 2*
***3**, when TPNC ratio = 3 or TRNC ratio = 4*

4, when *TPNC* ratio *≥ 5*

19.	**Capital requirements coverage ratio**

- Small mutual insurance undertakings:

$$CRC = Equity$$

- Other (re)insurance undertakings:
  - $$CRC \quad = min\left(\frac{Own\ funds}{Solvency\ margin}\ ;\ \frac{Own\ funds\ for\ Guarantee\ Fund\ coverage}{Guarantee\ Fund}\right)$$

Grades for small mutual insurance undertakings:

1, when *CRC* ratio *≥ 0.00*
4, when *CRC* ratio *< 0.00*

Grades for other life (re)insurance undertakings:

1, when *CRC* ratio *≥ 160.00%*
2, when *CRC is within the range [110.00% ; 160.00%)*
3, when *CRC is within the range [100.00% ; 110.00%)*
4, when *CRC < 100.00%*

Grades for other non-life (re)insurance undertakings:

1, when *CRC* ratio *≥ 200.00%*
2, when *CRC is within the range [110.00% ; 200.00%)*
3, when *CRC is within the range [100.00% ; 110.00%)*
4, when *CRC < 100.00%*

20.	**Non-coverage of capital requirements with relevant own funds over the last 3 years**

- Small mutual insurance undertakings:

$$CRNC = \sum_{t=-11}^{-1} m_t \cdot \varpi_t$$

$$m_{t=}\begin{cases} 1 & Equity < 0 \\ 0 & Equity \ \geq 0 \end{cases}$$

$$\omega_{t=}\begin{cases} 1, when\ t\epsilon[-11;\ -8] \\ 2, when\ t\epsilon[-7; -4] \\ 3, when\ t\epsilon[-3; -1] \end{cases}$$

The assessment covers the results for the last 11 quarters (without the reporting period for which the assessment is performed). Moreover, the results of individual quarters are weighted so that the most up-to-date information has the biggest weight in the analysis.

- Other (re)insurance undertakings:

$$CRNC = \sum_{t=-35}^{-1} m_t \cdot \varpi_t$$

$$m_{t=}\begin{cases} 1 & CRC_t < 100.00\% \\ 0 & CRC_t \geq 100.00\% \end{cases}$$

$$CRC_t = min\left(\frac{Own\ funds_t}{Solvency\ margin_t}\ ;\ \frac{Own\ funds\ for\ Guarantee\ Fund\ coverage_t}{Guarantee\ Fund_t}\right)$$

$$\omega_{t=}\begin{cases}1, when\ t\epsilon[-35;\ -24]\\2, when\ t\epsilon[-23;-12]\\3, when\ t\epsilon[-11;-1]\end{cases}$$

The assessment covers the results for the last 35 months (without the reporting period for which the assessment is performed). Moreover, the results of individual months are weighted so that the most up-to-date information has the biggest weight in the analysis.

Grades:

1, when *CRNC* ratio *= 0*
2, when *CRNC* ratio *= 1 or 2*
3, when *CRNC* ratio *= 3 or 4*
4, when *CRNC* ratio *≥ 5*

21.	**Stress test results for aggregated risk**

- Small mutual insurance undertakings:

$$ST_{agr} = 1 - \frac{Equity\ after\ stress}{Equity\ before\ stress}$$

- Other (re)insurance undertakings:

$$ST_{agr} = \frac{Own\ funds\ after\ stress}{max(Solvency\ marginafter\ stress\ ;\ Guarantee\ fundafter\ stress)}$$

Aggregation of financial results upon the occurrence of all shocks analysed as part of stress tests is based on the methodology adopted for determining the Solvency Capital Requirement (SCR) in the "Solvency II" Directive and in draft delegated act with the "Solvency II" Directive.

Grades for small mutual insurance undertakings:
1, when ST_{agr} ratio *is within the range [0.00% ; 25.00%)*
2, when ST_{agr} ratio *is within the range [25.00% ; 50.00%)*
3, when ST_{agr} ratio *is within the range [50.00% ; 100.00%)*
4, when ST_{agr} ratio *≥ 100.00%*

Grades for other (re)insurance undertakings:
1, when ST_{agr} ratio *≥ 110.00%*
2, when ST_{agr} ratio *is within the range [100.00% ; 110.00%)*
3, when ST_{agr} ratio *is within the range [0.00% ; 100.00%)*
4, when $Own\ funds_{after\ stress} < 0.00$

3.3 Governance assessment

Governance risk – risk related to improper management, insufficient identification and mitigation of risk underlying the activity, lack of internal control or its insufficient operation, improper application of internal procedures or failure to observe the same.

3.3.1 Quantitative assessment of governance

1. Financial result risk – risk of generating the financial result below the requirements of conducting or developing activity.

22.	**Return on equity**

$$ROE = \frac{Net\ financial\ result_{for\ the\ last\ 12\ months}}{Equity_{average\ value\ for\ the\ last\ 5\ quarters}}$$

Grades for joint-stock (re)insurance undertakings:

1, when *ROE* ratio *≥ 20.00%*
2, when *ROE* ratio *is within the range [10.00% ; 20.00%)*
3, when *ROE* ratio *is within the range [0.00% ; 10.00%)*
4, when *ROE* ratio *< 0.00%*

Grades for mutual (re)insurance undertakings:

1, when *ROE* ratio *≥ 5.00%*
2, when *ROE* ratio *is within the range [2.00% ; 5.00%)*
3, when *ROE* ratio *is within the range [0.00% ; 2.00%)*
4, when *ROE* ratio *< 0.00%*

23.	Return on insurance underwriting activity

$$RTA = \frac{Technical\ result_{for\ the\ last\ 12\ months}}{Premium\ earned - net\ of\ reinsurance_{for\ the\ last\ 12\ months}}$$

Grades for life (re)insurance undertakings (joint-stock undertakings):

1, when *RTA* ratio *≥15.00%*
2, when *RTA* ratio *is within the range [3.00% ; 15.00%)*
3, when *RTA* ratio *is within the range [0.00% ; 3.00%)*
4, when *RTA* ratio *< 0.00% or Premium earned - net of reinsurance* *for last 12 months* *<0*

Grades for life (re)insurance undertakings (mutual insurance undertakings):

1, when *RTA* ratio *≥ 5.00%*
2, when *RTA* ratio *is within the range [2.00% ; 5.00%)*
3, when *RTA* ratio *is within the range [0.00% ; 2.00%)*
4, when *RTA* ratio *< 0.00% or Premium earned - net of reinsurance* *for last 12 months* *<0*

Grades for non-life (re)insurance undertakings (joint-stock undertakings):

1, when *RTA* ratio *≥ 10.00%*
2, when *RTA* ratio *is within the range [0.00% ; 10.00%)*
3, when *RTA* ratio *is within the range [-5.00% ; 0.00%)*
4, when *RTA* ratio *< -5.00% or Premium earned - net of reinsurance* *for last 12 months* *<0*

Grades for non-life (re)insurance undertakings (mutual (re)insurance undertakings):

1, when *RTA* ratio *≥ 5.00%*
2, when *RTA* ratio *is within the range [0.00% ; 5.00%)*
3, when *RTA* ratio *is within the range [-5.00% ; 0.00%)*
4, when *RTA* ratio *< -5.00% or Premium earned - net of reinsurance* *for last 12 months* *<0*

24.	Return on investment

- Life (re)insurance undertakings

$$ROI = \omega_B g\_ROI_B + (1 - \omega_B) g\_ROI_C$$

where:

$$\omega_B = \frac{Investments\ (other\ than\ assets\ held\ for\ unit - linked\ funds)_{\ average\ for\ 5\ quarters}}{\left(\begin{array}{c} Investments\ (other\ than\ assets\ held\ for\ unit - linked\ funds)_{\ average\ for\ 5\ quarters} + \\ Assets\ held\ for\ unit - linked\ funds_{average\ for\ 5\ quarters} \end{array} \right)}$$

For investments (other than assets held for unit-linked funds):

$$ROI_B = \frac{Investment\ result_{for\ 12\ months} + Revaluation\ reserve_{annual\ movement}/0.81}{Investments\ (other\ than\ assets\ held\ for\ unit-linked\ funds)\ _{average\ for\ 5\ quarters}}$$

$$g\_ROI_B = \begin{cases} 1, gdy\ ROI_B \geq\ BY \\ 2, gdy\ ROI_B \in\ [0.50\ BY; BY) \\ 3, gdy\ ROI_B \in\ [0.00; 0.50\ BY) \\ 4, gdy\ ROI_B <\ 0{,}00 \end{cases}$$

For assets held for unit-linked funds:

$$ROI_C = \frac{Investment\ result_{for\ 12\ months}}{Assets\ held\ for\ unit-linked\ funds_{average\ for\ 5\ quarters}}$$

$$g\_ROI_C = \begin{cases} 1, gdy\ ROI_C \geq\ BY \\ 2, gdy\ ROI_C \in\ [0.50\ BY; BY) \\ 3, gdy\ ROI_C \in\ [0.00; 0.50\ BY) \\ 4, gdy\ ROI_C <\ 0{,}00 \end{cases}$$

- Non-life (re)insurance undertakings

$$ROI = \frac{Investment\ result_{for\ 12\ months} + Revaluation\ reserve_{annual\ movement}/0.81}{Investments_{average\ for\ 5\ quarters}}$$

Grades for life (re)insurance undertakings:

1, when *ROI* ratio *< 1.50*
2, when *ROI* ratio *is within the range [1.50 ; 2.50)*
3, when *ROI* ratio *is within the range [2.50 ; 3.50)*
4, when *ROI* ratio *≥ 3.50*

where *BY* – average yield of 5Y fixed-interest T-bonds acquired in primary market in the year for which the grade is awarded.

Grades for non-life (re)insurance undertakings:

1, when *ROI* ratio *≥ ABY*
2, when *ROI* ratio *is within the range [ABY *0.50 ; ABY)*
3, when *ROI* ratio *is within the range [0.00 ; ABY *0.50)*
4, when *ROI* ratio *< 0.00*

where *ABY* – average yield of 2Y fixed-interest T-bonds acquired in primary market in the year for which the grade is awarded.

25.	**Acquisition costs ratio**

$$ACR = \frac{Acquisition\ costs_{for\ last\ 12\ months}}{Gross\ written\ premium_{for\ last\ 12\ months}}$$

Grades for life (re)insurance undertakings:

1, when *ACR* ratio *≤ 5.00%*
2, when *ACR* ratio *is within the range (5.00% ; 15.00%]*
3, when *ACR* ratio *is within the range (15.00% ; 50.00%]*
4, when *ACR* ratio *> 50.00%*

Grades for non-life (re)insurance undertakings:

1, when *ACR* ratio *≤ 12.00%*
2, when *ACR* ratio *is within the range (12.00% ; 20.00%]*
3, when *ACR* ratio *is within the range (20.00% ; 30.00%]*
4, when *ACR* ratio *> 30.00%*

26.	**Administrative costs ratio**

$$DCR = \frac{Administrative\ costs_{for\ last\ 12\ months}}{Gross\ written\ premium_{for\ last\ 12\ months}}$$

Grades for life (re)insurance undertakings:

1, when *DCR* ratio *≤ 2.00%*
2, when *DCR* ratio *is within the range (2.00% ; 8.00%]*
3, when *DCR* ratio *is within the range (8.00% ; 35.00%]*
4, when *DCR* ratio *> 35.00%*

Grades for non-life (re)insurance undertakings:

1, when *DCR* ratio *≤ 5.00%*
2, when *DCR* ratio *is within the range (5.00% ; 10.00%]*
3, when *DCR* ratio *is within the range (10.00% ; 20.00%]*
4, when *DCR* ratio *> 20.00%*

27.	**Total technical profits to total technical results for insurance classes**

- Life (re)insurance undertakings

$If \sum_{i=1}^{6} |TR_i| \neq 0, then:$

$$TTP = \frac{\sum_{i=1}^{6} max(0; TR_i)}{\sum_{i=1}^{6} |TR_i|}$$

- Non-life insurance undertakings

$If \sum_{i=1}^{19} |TR_i| \neq 0, then:$

$$TTP = \frac{\sum_{i=1}^{19} max(0; TR_i)}{\sum_{i=1}^{19} |TR_i|}$$

- Non-life reinsurance undertakings

$If \sum_{i=1}^{10} |TR_i| \neq 0, then:$

$$TTP = \frac{\sum_{i=1}^{10} max(0; TR_i)}{\sum_{i=1}^{10} |TR_i|}$$

where:

i – insurance class index for insurance undertakings or reinsurance class index for reinsurance undertakings. In case of the insurance undertaking inward reinsurance activity is treated as one class.

TR_i – technical result from *i*- (re)insurance class

Grades for life (re)insurance undertakings:

1, when *TTP* ratio *≥ 90.00%*
2, when *TTP* ratio *is within the range [66.00% ; 90.00%)*
3, when *TTP* ratio *is within the range [50.00% ; 66.00%)*
4, when *TTP* ratio *< 50.00%*

Grades for non-life (re)insurance undertakings:

1, when *TTP* ratio *≥ 90.00%*

2, when *TTP* ratio *is within the range [66.00% ; 90.00%)*
3, when *TTP* ratio *is within the range [45.00% ; 66.00%)*
4, when *TTP* ratio *< 45.00%*

28.	**Share of insurance classes with technical earnings**

- Life (re)insurance undertakings

$$ITE = \sum_{i=1}^{6} \frac{GTP_i}{GTP} DWT_i$$

- Non-life insurance undertakings

$$ITE = \sum_{i=1}^{19} \frac{GWP_i}{GWP} DWT_i$$

- Non-life reinsurance undertakings

$$ITP = \sum_{i=1}^{10} \frac{GWP_i}{GWP} DWT_i$$

where:

i – insurance class index for insurance undertakings or reinsurance class index for reinsurance undertakings. In case of the insurance undertaking inward reinsurance activity is treated as one class.

GTP – Gross technical provisions

GWP – Gross written premium

$$DWT_i = \begin{cases} 1, when\ TR_i > 0.00 \\ 0, when\ TR_i \leq 0.00 \end{cases}$$

TR_i – technical result from *i*-insurance class

Grades:

1, when *ITE* ratio *≥ 90.00%*
2, when *ITE* ratio *is within the range [50.00% ; 90.00%)*
3, when *ITE* ratio *is within the range [10.00% ; 50.00%)*
4, when *ITE* ratio *< 10.00%*

2. Strategic risk – risk related to taking unfavourable or erroneous strategic decisions, failure to execute the adopted strategy or its defective execution and changes in the external environment and improper reaction to those changes.

29.	**Change in market share**

- Life (re)insurance undertakings

$$MSC = \frac{\frac{GTP}{\sum_{classes\ in\ which\ the\ undertaking\ performs\ activity} GTP}}{\frac{GTP_{Year(x-1)}}{\sum_{classes\ in\ which\ the\ undertaking\ performs\ activity} GTP_{Year(x-1)}}} - 1$$

where:

GTP – Gross technical provisions[4]

- Non-life (re)insurance undertakings

$$MSC = \frac{\frac{GWP}{\sum_{classes\ in\ which\ the\ undertaking\ performs\ activity} GWP}}{\frac{GWP_{Year(x-1)}}{\sum_{classes\ in\ which\ the\ undertaking\ performs\ activity} GWP_{Year(x-1)}}} - 1$$

where:

GWP – Gross written premium for the last 12 months[4]

Inward reinsurance activity is considered as one class.

Grades:

1, when *MSC* ratio *≥ 30.00%* and for the (re)insurance undertaking that started operation in a given year
2, when *MSC* ratio *is within the range [0.00% ; 30.00%)*
3, when *MSC* ratio *is within the range [-15.00% ; 0.00%)*
4, when *MSC* ratio *< -15.00%*

A grade will be revised one level up, when an undertaking is a mutual insurance undertaking and insures only its members - statutory defined group of entities.

30.	Extent of financial plan execution in terms of gross written premium[5]

$$FPEP = \frac{Gross\ written\ premium}{Gross\ written\ premium_{from\ financial\ plan}}$$

Grades:

1, when *90.00% ≤ FPEP ≤ 110.00%*
2, when *70.00% ≤ FPEP < 90.00% or* when *110.00% < FPEP ≤ 130.00%*
3, when *50.00% ≤ FPEP < 70.00% or* when *130.00% < FPEP ≤ 200.00%*
4, when *FPEP < 50.00% or when FPEP > 200.00%*

31.	Extent of financial plan execution in terms of net financial result[5]

$$FPEFR = \frac{\left|FR - FR_{from\ financial\ plan}\right|}{\left|FR_{from\ financial\ plan}\right|}$$

where:

FR – *Net* financial result

[4] In case of merger of (re)insurance undertakings, information on merged undertakings is taken into account respectively.

[5] Figures from the first financial plan of the (re)insurance company submitted to the supervision authority are taken into account. In case of merger of (re)insurance undertakings, financial plans of merged undertakings are taken into account respectively.

Grades for life (re)insurance undertakings:

1, when *FPEFR* ratio *≤ 7.00%*
2, when *FPEFR* ratio *is within the range (7.00% ; 35.00%]*
3, when *FPEFR* ratio *is within the range (35.00% ; 140.00%]*
4, when *FPEFR* ratio *> 140.00%*

Grades for non-life (re)insurance undertakings:

1, when *FPEFR* ratio *≤ 13.00%*
2, when *FPEFR* ratio *is within the range (13.00% ; 70.00%]*
3, when *FPEFR* ratio *is within the range (70.00% ; 250.00%]*
4, when *FPEFR* ratio *> 250.00%*

3. Relationship with customers - risk due to improper or incorrect functioning of tools and procedures of significance in managing relations with customers

32.	Relative total fines imposed by supervision authority

$$TF = \begin{cases} \dfrac{Total\ fines_{for\ last\ 12\ months}}{0.5\% * GWP_{in\ year\ x-1}}, when\ GWP_{in\ year\ x-1} \geq 20\ million \\ \dfrac{Total\ fines_{for\ last\ 12\ months}}{100\ 000}, when\ GWP_{in\ year\ x-1} < 20\ million \end{cases}$$

where:

GWP – Gross written premium

Grades:

1, when *TF* ratio *= 0.00%*
2, when *TF* ratio *is within the range (0.00% ; 2.00%]*
3, when *TF* ratio *is within the range (2.00% ; 10.00%]*
4, when *TF* ratio *> 10.00%*

33.	Level of complaints for (re)insurance undertaking

- Life insurance undertakings

$$LC = \frac{\dfrac{Number\ of\ complaints}{Number\ of\ the\ policyholders}}{\dfrac{Total\ number\ of\ complaints\ for\ all\ life\ insurance\ undertakings}{Total\ number\ of\ the\ \ policyholders for\ all\ life\ insurance\ undertakings}}$$

- Non-life insurance undertakings

$$LC = \frac{\dfrac{Number\ of\ complaints}{Number\ of\ insured\ risks\ in\ individual\ and\ group\ insurance\ during\ the\ year}}{\dfrac{Total\ number\ of\ complaints\ for\ all\ non-life\ insurance\ undertakings}{Number\ of\ insured\ risks\ in\ individual\ and\ group\ insurance\ during\ the\ year\ for\ all\ non-life\ insurance\ undertakings}}$$

- Reinsurance undertakings

LC = 0

Grades:

1, when *LC* ratio *≤ 25.00%*
2, when *LC* ratio *is within the range (25.00% ; 100.00%]*
3, when *LC* ratio *is within the range (100.00% ; 400.00%]*
4, when *LC* ratio *> 400.00%*

3.3.2 Qualitative assessment of governance (expert judgement)

For the governance assessment to be comprehensive, the qualitative assessment of governance takes into account the specificities of the (re)insurance undertaking. When assessing the areas mentioned below, the elements such as the form of individual (re)insurance undertakings (mutual insurance undertaking, joint-stock undertaking), development stage, scale and profile of operations, distribution channels, insurance capital group of the undertaking, overseas branches and adopted risk management system and process are taken into account. This means an individual approach to each (re)insurance undertaking (the same factor may be assessed differently depending on the specific features of the (re)insurance undertaking).

The grade is given by panels of experts composed of representatives of departments of the PFSA involved in the process of exercising supervision over the (re)insurance undertaking.

Qualitative assessment covers the following areas. The following topics are at least taken into account when assessing each area (the assessment takes account of the events from the year subject to assessment, unless provided for otherwise):

1. **Strategy:**
   - Does the (re)insurance undertaking have a document describing its strategy?
   - Has the strategy been developed in consultation with shareholder and approved by the Supervisory Board or General Meeting?
   - Is the strategy clearly defined and does it cover strategic goals for material areas of operations of the (re)insurance undertaking?
   - Does (re)insurance undertaking achieve strategic goals?
   - Are the strategy and financial plans consistently executed with the knowledge and support of shareholders, in a way ensuring financial stability of the (re)insurance undertaking?
   - Are financial plans realistic?
   - Is business model stable? Which type of activity brings in profits and why?
   - What are key internal and external factors and risks that have or may have influence on stability of operation of the undertaking?
   - Have there been any reservations about the operations strategy and its execution made under the off-site supervision or on-site inspections performed?
   - Has the (re)insurance undertaking executed any declared actions, if the "strategy" area was assessed 2.50 or worse in the last year Risk Assessment Framework?
2. **Organisational structure:**
   - Does the (re)insurance undertaking have in place a clear, up-to-date, complete organisational scheme and organisational regulations?
   - Is the organisational structure clear, transparent, up-to-date, flexible and adequate to the scale and profile of operations?
   - Has the segregation of duties among the Management Board members been defined in the (re)insurance undertaking in a way which is clear, up-to-date and adequate to their qualifications and experience and does it ensure systematic flow of information?
   - Have the sales functions been separated from claims handling and operational functions from control ones?
   - Do the employees employed in the (re)insurance undertaking have the scopes of rights and duties assigned thereto?
   - Does the (re)insurance undertaking have written remuneration policy and do these policies enable managing conflict of interest?

- Are there proper internal units or committees dedicated to material areas of operations established in the (re)insurance undertaking?
- Have there been any reservations about the organisational structure and its functioning made under the off-site supervision or on-site inspections performed?
- Has the (re)insurance undertaking executed any declared actions, if the "organisational structure" area was assessed 2.50 or worse in the last year Risk Assessment Framework?

3. Products/business:

- Is the product portfolio properly diversified and does it ensure profitability of operations?
- Does the (re)insurance undertaking perform technical analyses of products' structure correctness and sales profitability and if so, how often?
- Does the undertaking monitor and analyse changes in legal regulations/ market environment having impact on the product offer?
- What is the quality of products offered (general insurance terms & conditions)?
- Is the amount of premiums determined adequately?
- Does the (re)insurance undertaking offer complex, complicated and risk-bearing insurance products?
- Does the (re)insurance undertaking have diversified product distribution channels (internet, bank, telephone, agency or brokerage channel)?
- Does the (re)insurance undertaking perform analyses of return on sale of products per distribution channel and if so, how often?
- Does the (re)insurance undertaking have rules on cooperation with insurance agents?
- Does the (re)insurance undertaking supervise a duty of transmission by insurance agents changes concerning their operation and data concerning natural persons carrying out agency activities?
- Does the (re)insurance undertaking have rules on ethical behaviour of insurance agents?
- Are the agents involved in creation, modification and valuation process of insurance products?
- Have in the (re)insurance undertaking been introduced mechanisms ensuring that insurance agents have sufficient knowledge to provide the clients with complete and honest information on concluded insurance contracts?
- Does the (re)insurance undertaking conclude insurance group contracts with pay for insurer?
- Have there been any reservations about the principles of structure, profitability and quality of products made under the off-site supervision or on-site inspections performed?
- Has the (re)insurance undertaking executed any declared actions, if the "products/business" area was assessed 2.50 or worse in the last year Risk Assessment Framework?

4. Key persons:

- Are the qualifications and experience of individual Management Board members adequate to ensure sound and prudent management of the (re)insurance undertaking?
- Are the changes in composition of the Management Board or the Supervisory Board frequent and material?
- Does the (re)insurance undertaking fulfil regulatory and statutory requirements as regards proper Management Board composition?
- When informing the supervisory authority about changes in composition of the Management Board or Supervisory Board, does the (re)insurance undertaking provide all the data necessary for the assessment?

- Do the newly appointed Management Board or Supervisory Board members comply with the statutory requirements?
- Are the requirements concerning the Management Board met collectively (knowledge of the Polish language and professional experience of proper number of Management Board members)?
- Does the (re)insurance undertaking ensure appropriate level of qualifications and experience of Management Board and persons responsible for key functions?
- Has the supervisory authority refused to accept candidates for the Management Board members and if so, how many times?
- Has the supervisory authority demanded that a Management Board member or commercial proxy be dismissed and if so, how many times?
- Does the (re)insurance undertaking have a formalised list of key persons (for business continuity plans)?
- Is the process dependence on individual persons identified at the (re)insurance undertaking?
- Are the qualifications and experience of key persons compliant with legal requirements and adequate to ensure sound and prudent management of the (re)insurance undertaking?
- Does the (re)insurance undertaking have in place procedures for replacement of key persons?
- Are there frequent changes in the (re)insurance undertaking of key persons?
- Does the undertaking comply with the guidelines/ recommendations of the supervisory authority ?
- Have there been any reservations about the key persons made under the off-site supervision, authorisation process or on-site inspections performed?
- Has the (re)insurance undertaking executed any declared actions, if the "key persons" area was assessed 2.50 or worse in the last year Risk Assessment Framework?

5. Ownership:

- Is the owner of the (re)insurance undertaking providing substantive and capital support stable in financial terms (e.g. taking into account rating)?
- Does the owner properly react to capital needs of the (re)insurance undertaking?
- Does the owner monitor operations of the (re)insurance undertaking on an on-going basis?
- Are the investors commitments fulfilled and if so, how?
- Does the shareholding structure make it possible to effectively manage the (re)insurance undertaking?
- Does the (re)insurance undertaking have in place a system of on-going reporting to owners?
- Is Management Board's and Supervisory Board's remuneration determined based on clear and transparent procedures?
- Does the supervisory authority have reservations as to the insurance capital group or financial conglomerate whereto the (re)insurance undertaking belongs?
- Does the (re)insurance undertaking ensure that its shareholders have equal and appropriate access to information?
- Does the (re)insurance undertaking comply with the guidelines/recommendations of the supervisory authority ?
- Have there been any reservations about ownership made under the off-site supervision or on-site inspections performed?
- Has the (re)insurance undertaking executed any declared actions, if the "ownership" area was assessed 2.50 or worse in the last year Risk Assessment Framework?

6. Relationship with customers:

- Does the insurance undertaking have in place a clear, up-to-date, complete, applied in practice, compliant with law documentation regarding relationship with customers?
- Does the undertaking have transparent, up-to-date and complete procedures of complaints handling?
- Is the number of complaints material taking into account the scale and profile of operations of the undertaking?
- Have there been any reservations as to complaints handling?
- Has the supervisory authority imposed on the (re)insurance undertaking a fine in the area of relationship with customers?
- Does the insurance undertakings provide customer with accurate and transparent information in the General Insurance Terms and other publications?
- Are the customers provided, during the sale of investment products, with information about potential profits and losses connected with purchased products and required charges?
- Does the (re)insurance undertaking ensure adequate control (including legal control) in the scope of development of the general insurance terms & conditions, drawing up marketing and information materials and secure data storage?
- Does the (re)insurance undertaking have procedures how to deal with insurance agents revealing information about customers?
- Have there been any reservations about customer service made under the off-site supervision or on-site inspections performed?
- Has the (re)insurance undertaking executed any declared actions, if the "relationship with customers" area was assessed 2.50 or worse in the last year Risk Assessment Framework?

7. Outsourcing

- Does the (re)insurance undertaking outsource critical or important activities?
- Does the (re)insurance undertaking have outsourcing-related documentation in place that is clear, up-to-date, complete, applied in practice, compliant with law and adequate to the scale and profile of operations?
- Have the elements mentioned below been addressed in the form of outsourcing-related documentation:
  - the process of selecting the entity to which the (re)insurance undertaking intends to outsource activities,
  - the process of evaluating service providers, including control and supervision of external entities,
  - ensuring that the direct and indirect conflict of interests between the service provider and the (re)insurance undertaking is identified and properly managed,
  - the scope of permitted and prohibited activities that may be outsourced,
  - the structure of the agreement and its mandatory provisions,
  - determining the detailed terms and conditions of performing outsourced services,
  - the process of analysing risks related to outsourcing a relevant process,
  - ensuring that the outsourcing agreement ensures that the operations of (re)insurance undertaking are compliant with the law?
- Does the (re)insurance undertaking ensure that outsourcing of important operational activities does not lead to material deterioration in quality of the (re)insurance undertaking management system, excessive increase in operational risk or deterioration in provision of on-

going and satisfactory services to the insurance policyholders (e.g. procedures determining the rules of co-operation with and control over the service provider, for example) and if so, how?

- Have there been any cases of abuse, embezzlement or irregularities identified in respect of the service providers for the (re)insurance undertaking (over the last year) and if so, how many?
- Have there been any reservations about outsourcing area made under the off-site supervision or on-site inspections performed?
- Has the (re)insurance undertaking executed any declared actions, if the "outsourcing" area was assessed 2.50 or worse in the last year Risk Assessment Framework?

8. IT systems:

- Does the (re)insurance undertaking have in place documentation regarding IT systems?
- Are the IT systems used compatible, reliable, scaled and adequate to the scale and profile of operations?
- Are the dedicated IT systems used in the selected areas of the (re)insurance undertaking operations (e.g. claims handling, reinsurance, accountancy, etc.)?
- Does the (re)insurance undertaking have in place an adequate information security policy?
- Do the IT systems give an access to the data only for authorized persons?
- Does the (re)insurance undertaking have in place an adequate policy or procedures to ensure continuity of IT systems, including a mechanism to prevent data loss in case of failure?
- Have there been any vital errors in functioning of IT systems leading to incorrect data generation in the assessed period and if so, how many?
- Have there been any IT system failures (interruptions) in the assessed period and if so, how many?
- Is the (re)insurance undertaking currently implementing new IT systems?
- Does the (re)insurance undertaking change/modify IT systems and if so, how often?
- Have there been any reservations about IT systems used in the (re)insurance undertaking made under the off-site supervision or on-site inspections performed?
- Has the (re)insurance undertaking executed any declared actions, if the "IT systems" area was assessed 2.50 or worse in the last year Risk Assessment Framework?

9. Reporting:

- Does the (re)insurance undertaking have in place a clear, up-to-date, complete, applied in practice, compliant with law accounting policy?
- Do the rules on accounting organization, applied by the (re)insurance undertaking, determine procedures and schedule for fulfilment of requirements on information provision as well as detailed information on single business units responsibility for preparation and verification of reports for the supervisory authority?
- Does the (re)insurance undertaking provide financial statements and statistical reports to the supervisory authority in a timely manner?
- Do the financial statements and statistical reports provided to the supervisory authority meet the formal requirements (form, signatures, and completeness)?
- Are the financial statements and statistical reports provided to the supervisory authority correctly prepared (number of mistakes)?
- Are there any important differences between the report for the fourth quarter and the annual report? What are the reasons therefor?

- Does the (re)insurance undertaking fulfil disclosure obligations regarding unit-linked funds and Individual Retirement Account (IKE)?
- What was the chartered auditor's opinion on the financial statements for the year subject to assessment?
- Do the persons responsible for preparing financial statements have relevant qualifications?
- Does the Audit Committee adequately oversee the reporting process?
- Does the (re)insurance undertaking have internal regulations determining fulfilment of obligations as regards internal and external reporting in place?
- Has the supervisory authority identified the cases of "aggressive accounting"?
- Has the supervisory authority identified the cases of preparing financial statements incompliant with accounting principles?
- Does the (re)insurance undertaking have complete, correct and up-to-date registers required by law (register of insurance policies, claims and reinsurance agreements)?
- Does the (re)insurance undertaking adequately oversee a register keeping process, a book keeping process and a reporting process?
- Does the (re)insurance undertaking when choosing the chartered auditor ensure that the chartered auditors from the same network (as it is defined in *The Act of 7th May 2009 on chartered auditor and their authorities, audit companies and public supervision (Journal of Laws 2009, No. 77, Item 649)*) do not audit the financial statement for a period longer than five years?
- Does the (re)insurance undertaking value on its own or independently verify the valuation of derivatives?
- Have there been any reservations about reporting, accounting books or registers made under the off-site supervision or on-site inspections performed?
- Has the (re)insurance undertaking executed any declared actions, if the "reporting" area was assessed 2.50 or worse in the last year Risk Assessment Framework?

10. Relationship with supervision authority:

- Does the (re)insurance undertaking co-operate with the supervisory authority ?
- Are the disclosure obligations fulfilled in a timely manner?
- Does the (re)insurance undertaking provide complete and correctly developed requested information, explanations or documents?
- Does the (re)insurance undertaking execute recommendations of the supervisory authority in a timely manner?
- Does the (re)insurance undertaking initiate meetings to communicate important decisions to the supervisory authority?
- Are the relations with the supervisory authority during on-site inspections correct and enable its efficient performance?
- Has the (re)insurance undertaking designated a person responsible for contacts with the supervisory authority?
- Are the relations with the person designated for contacts with the supervisory authority correct and enable efficient obtaining of requested information?
- Does the (re)insurance undertaking provide for working form of contacts with the supervisory authority (e-mail, telephone)?
- Have there been any reservations about relationship with supervision authority made under the off-site supervision or on-site inspections performed?

- Has the (re)insurance undertaking executed any declared actions, if the "relationship with supervision authority" area was assessed 2.50 or worse in the last year Risk Assessment Framework?

11. Internal control/internal audit:

- Does the (re)insurance undertaking have in place an effective internal control system, adequate to the scale and profile of operations?
- Does the insurance undertaking have in place a clear, up-to-date, complete and adequate to the scale and profile of operations documentation regarding the internal control?
- Does the internal control system is adapted to the risks identified in the (re)insurance undertaking, and is monitored and evaluated in terms of efficiency and changes in the (re)insurance undertakings?
- Has the chartered auditor positively assessed the internal control system during the last audit of financial statements?
- Does the internal control system cover control mechanisms concerning making use of insurance agents' services?
- Does the (re)insurance undertaking have a compliance unit or a compliance officer?
- Does the competence scope of persons responsible for the compliance function cover:
  - advising the administrative, management or supervisory body on compliance with laws and regulations,
  - assessment of the impact of any changes in law on operations and financial standing of the (re)insurance undertaking,
  - identification, assessment of exposure to compliance risk?
- Does the insurance undertaking have in place a clear, up-to-date, complete and adequate to the scale and profile of operations documentation regarding the compliance?
- Does the (re)insurance undertaking provide an internal audit?
- Does the insurance undertaking have in place a clear, up-to-date, complete and adequate to the scale and profile of operations documentation regarding the internal audit?
- Who oversees directly the internal audit?
- Does the internal audit function in the conditions ensuring objectivity and independence of its operation? Is the internal audit independent from other operational functions in the (re)insurance undertaking?
- Are the internal audit plans developed and do they cover important areas/processes in the (re)insurance undertaking operations?
- Does the (re)insurance undertaking execute the internal audit plans?
- Are the results of the internal audit conducted reported to the Management Board and the Supervisory Board?
- Does the (re)insurance undertaking comply with the internal audit recommendations?
- Is the internal audit plan evaluated in terms of efficiency and changes within the (re)insurance undertakings and is it tailored to the identified risks?
- Does the (re)insurance undertaking comply with the recommendations of the PFSA concerning functioning of the Audit Committee?
- Have there been any reservations about internal control or internal audit system and their operation made under the off-site supervision or on-site inspections performed?

- Has the (re)insurance undertaking executed any declared actions, if the "internal control/internal audit" area was assessed 2.50 or worse in the last year Risk Assessment Framework?

12. Business continuity plan (contingency plans):

- Does the (re)insurance undertaking have in place a clear, up-to-date, complete and adequate to the scale and profile of operations documentation regarding the business continuity (contingency plans)?
- Are contingency plans systematically tested?
- Has the (re)insurance undertaking defined priorities and areas as regards business continuity management?
- Does the (re)insurance undertaking have the following:
  - business continuity plans for critical processes,
  - designated persons/units responsible for ensuring business continuity,
  - procedures for emergency situation?
- Does the (re)insurance undertakings perform an analysis of operational risk potentially resulting in the disruption of business continuity and an analysis of internal and external threats to which key locations are exposed to, and analysis of resources necessary for the implementation of key processes?
- Have there been any reservations about business continuity plan made under the off-site supervision or on-site inspections performed?
- Has the (re)insurance undertaking executed any declared actions, if the "business continuity plan" area was assessed 2.50 or worse in the last year Risk Assessment Framework?

13. Reinsurance/retrocession:

- Does the (re)insurance undertaking have in place a clear, up-to-date, complete, adequate to the scale and profile of operations, covering all material aspects documentation regarding reinsurance?
- Does the (re)insurance undertaking systematically review reinsured portfolio, settlements, financial standing of reinsurers, reinsurance needs of its portfolio?
- Is the type and level of reinsurance of the portfolio (collectively and for individual classes) adequate to the profile and scale of the undertaking operations?
- Is the assessment of reinsurance programmes positive?
- Does the (re)insurance undertaking have a relevant programme for catastrophe reinsurance?
- Does the undertaking conclude/have reinsurance agreements with limited risk transfer (finite reinsurance)?
- Does the (re)insurance undertaking take into consideration the connections between reinsurance contracts, rules on underwriting and the level of technical provisions?
- Have there been any reservations about reinsurance made under the off-site supervision or on-site inspections performed?
- Has the (re)insurance undertaking executed any declared actions, if the "reinsurance/retrocession" area was assessed 2.50 or worse in the last year Risk Assessment Framework?

14. Asset management:

- Does the insurance undertaking have in place a clear, up-to-date, complete, applied in practice and compliant with the law documentation regarding asset management?

- Does the documentation concerning asset management at the (re)insurance undertaking cover:
  - type of investments wherein the (re)insurance undertaking may invest assets covering technical provisions,
  - type of investments wherein the (re)insurance undertaking may invest disposable funds (free cash),
  - investment limits,
  - rules concerning market and credit risk estimation,
  - rules concerning market risk concentration,
  - rules concerning liquidity management,
  - techniques applied by the (re)insurance undertaking to measure its own exposure to market risk,
  - rules concerning matching assets and liabilities according to structure, maturity and currency,
  - rules concerning capital exposure in related entities,
  - conditions of granting loans,
  - rules concerning derivatives, ABS, CDOs, hedge funds and other instruments of similar nature,
  - levels of investments limits in the decision-making process at individual organisational levels,
  - procedure of investment strategy review,
  - procedure of monitoring investment activity and performing investment review,
  - investment pricing principles,
  - stress tests and scenario analyses determining their frequency?
- Does the (re)insurance undertaking when managing assets control on an on-going basis:
  - liquidity risk,
  - market risk,
  - credit risk, including concentration risk?
- Does the (re)insurance undertaking when managing assets use the services provided by external entities (outsourcing) and does it control on an on-going basis the risk related thereto?
- Does the (re)insurance undertaking with high concentration of assets in one entity have a proper capital buffer?
- Does the (re)insurance undertaking properly manage the risks resulting from investing in derivatives?
- Have there been any reservations about asset management made under the off-site supervision or on-site inspections performed?
- Has the (re)insurance undertaking executed any declared actions, if the “asset management” area was assessed 2.50 or worse in the last year Risk Assessment Framework?

15. Risk management:

- Has the (re)insurance undertaking implemented a risk management function?
- Does the (re)insurance undertaking have a written risk management strategy and risk management policies? Which areas do these policies cover?

- Does the risk management system cover all areas mentioned in Art. 44 (2) (a-f) of Solvency II Directive and capital management?
- Is the risk management system integrated with the internal control system?
- Does the risk management system include the risks' identification, measurement, monitoring, management, mitigation, reporting and their interdependencies?
- Has the Management Board set a risk appetite and overall risk tolerance limits?
- Does the (re)insurance undertaking regularly review the operational effectiveness of the risk management system?
- Which areas do capital management policies cover?
- Does the (re)insurance undertaking prepare a medium-term capital management plan?
- Does a risk management function report relevant information to Management Board?
- Does the Management Board report to Supervisory Board information about the (re)insurance undertaking's key risks and implemented control mechanism?
- Does the (re)insurance undertaking identify the operational risks resulting from internal and external processes?
- Does the (re)insurance undertaking have in place procedures to identify, analyse and report operational risk events and to take proper steps to mitigate operational risk?
- Has the (re)insurance undertaking implemented processes for collecting and monitoring operational risk events?
- Has the (re)insurance undertaking defined a relevant set of operational risk stress scenarios? Does the (re)insurance undertaking analyse it?
- Have there been any reservations about risk management as the result of any off-site or on-site inspections?
- Has the (re)insurance undertaking executed any declared actions, if the "risk management" area was assessed 2.50 or worse in the last year Risk Assessment Framework?

16. Solvency II preparation:

- Does the (re)insurance undertaking have a Solvency II preparation strategy and work plan ?
- Does the (re)insurance undertaking control the realisation status of the Solvency II preparation work plan ?
- Has the (re)insurance undertaking delegated employees to participate in working groups dealing with Solvency II issues or assigned tasks to selected employees/units?
- Did the (re)insurance undertaking in the last QIS study have eligible own funds to cover both SCR and MCR (in case of MCR – eligible basic own funds). In case of non-compliance what kind of recovery plan did the (re)insurance undertaking present?
- Does the (re)insurance undertaking participate in the internal model pre-application process?
- Have there been any reservations about Solvency II preparation as the result of any off-site or on-site inspections?
- Has the (re)insurance undertaking executed any declared actions, if the "Solvency II preparation" area was assessed 2.50 or worse in the last year Risk Assessment Framework?

3.3.3 Adjustment of governance qualitative assessment grade

1. If there is no allocation of duties in the (re)insurance undertaking to specific Members of the Management Board, the grade of the "organisational structure" and the final governance qualitative assessment grade cannot be better than 2.50.

2. If the Chairman of the Management Board has not been approved by the Polish Financial Supervision Authority to take the office and the shareholders are not applying for approval of a new candidate, in such a case the grade of the "key persons" area and the final governance qualitative assessment grade are 4.00.
3. If the Management Board is composed of persons who, in the opinion of the supervisory authority, do not safeguard that the matters of the (re)insurance undertaking would be carried out duly, in such a case the grade of the "key persons" area and the final governance qualitative assessment grade cannot be better than 3.50.
4. If the office of the Chairman of the Management Board has been vacant for longer than 1 year, in such a case the grade of the "key persons" area and the final governance qualitative assessment grade cannot be better than 2.50.
5. If there have been (legal or statutory) deficiencies in the composition of the Management Board, other than the ones regarding the Chairman of the Management Board, sustaining for at least 1 year, in such a case the grade of the "key persons" area and the final governance qualitative assessment grade cannot be better than 2.00.
6. If the (re)insurance undertaking paid dividend infringing the requirements concerning having own funds to cover the solvency margin or guarantee fund, in such a case the grade of the "ownership" area and the final governance qualitative assessment grade is 4.00.
7. If the (re)insurance undertaking, when rotating the chartered auditor to audit its financial statements, has chosen the entity from the same network (as it is defined in *The Act of 7th May 2009 on chartered auditor and their authorities, audit companies and public supervision*) for longer than 5 years, in such a case the grade of the "reporting" area and the final governance qualitative assessment grade cannot be better than 3.50.
8. If any events of applying "aggressive accounting" are detected, in such a case the grade of the "reporting" area and the final governance qualitative assessment grade cannot be better than 3.50.
9. If any events are detected showing that the financial statements are not drawn up in compliance with the principles of accounting, in such a case the grade of the "reporting" area and the final governance qualitative assessment grade cannot be better than 3.00.
10. If the (re)insurance undertaking calculated its own funds incorrectly, without taking into account the impact of belonging to the insurance capital group, in such a case the grade of the "reporting" area and the final governance qualitative assessment grade cannot be better than 3.00.
11. If the (re)insurance undertaking calculated its own funds incorrectly, without excluding deferred tax assets, in such a case the grade of the "reporting" area and the final governance qualitative assessment grade cannot be better than 3.00.
12. If the chartered auditor issued a qualified opinion on the financial statements for the year under assessment, in such a case the grade of the "reporting" area and the final governance qualitative assessment grade cannot be better than 2.50.
13. If the chartered auditor issued an unqualified opinion on the financial statements for the year under assessment that contained an explanation/ comment that – in the opinion of the supervisory authority – has a negative impact on the quality of the financial statement, in such a case the grade of the "reporting" area and the final governance qualitative assessment grade cannot be better than 2.00.
14. If there are interpersonal relationships among the participants of the decision-taking processes in the (re)insurance undertaking, which may lead to potential conflict of interests, in such a case the grade of the "risk management" area and the final governance qualitative assessment grade cannot be better than 3.50.
15. If the (re)insurance undertaking does not comply with guidelines/recommendations of the supervisory authority, in such a case the final governance qualitative assessment grade cannot be better than 3.50.

16. If the (re)insurance undertaking does not execute the plans specified under Article 187 (1) - Article 187 (3) of the Insurance Act, in such a case the final governance qualitative assessment grade cannot be better than 3.50.
17. If the (re)insurance undertaking does not execute activities aimed at improvement in significant areas of the qualitative assessment for which it obtained grade equal to or worse than 2.50 for the previous year, in such a case the assessment of a given area and the final governance qualitative assessment grade cannot be better than 2.50.
18. If the supervisory authority issued a decision to redirect the activity of the (re)insurance undertaking in order to meet legal provisions, in such a case the final governance qualitative assessment grade cannot be better than 2.00.
19. If a fine has been imposed on the (re)insurance undertaking, in such a case the final governance qualitative assessment grade cannot be better than 1.75.
20. If at least one of the grade in the following areas: strategy, key persons, ownership, IT systems, reporting, internal control/internal audit, assets management – is at least 3.00, in such a case the final governance qualitative assessment grade cannot be better than the worst of the grades.

3.4 Adjustment of the risk score

1. If the chartered auditor issued an adverse opinion on the financial statement for the year under assessment, in such a case the grade of the "reporting" area, the final governance qualitative assessment grade and the risk score shall be 4.00.
2. If own funds of the (re)insurance undertaking are lower than the required guarantee fund and the (re)insurance undertaking does not carry out a short-term solvency plan, in such a case the risk score is 4.00.
3. If the (re)insurance undertaking does not fulfil, at least once during the assessed year, the requirement of holding assets sufficient to cover technical provisions or own funds sufficient to cover the solvency margin and guarantee fund, in such a case the grade of the "capital adequacy" area is 4.00 and the risk score cannot be better than 3.00 if one requirement is not fulfilled, or cannot be better than 3.50 if both requirements are not fulfilled.
4. If the investor's commitments are not fulfilled, the grade of the "ownership" area and the risk score cannot be better than 2.50.
5. If any of the following areas of the expert assessment: strategy, key persons, IT systems, corporate governance, internal control system/internal audit, reporting, assets management – has been assessed 4.00, in such a case the risk score cannot be better than 3.00.

4. Principles of the impact assessment according to Risk Assessment Framework (BION) for Insurance and Reinsurance Undertakings

4.1 Systemic risk

Systemic risk – risk related to potential impact of financial problems and potential bankruptcy of a single (re)insurance undertaking on the insurance market or institutions operating in the financial market.

34.	Market share

- Life (re)insurance undertakings

$$MS = \frac{Gross\ technical\ provisions}{\sum_{Life\ (re)insurance\ undertakings} Gross\ technical\ provisions}$$

- Non- Life (re)insurance undertakings

$$MS = \frac{Gross\ written\ premium\ for\ 12\ months}{\sum_{Non-life\ (re)insurance\ undertakings} Gross\ written\ premium\ for\ 12\ months}$$

Grades:

1, when *MS* ratio *< 1.00%*
2, when *MS* ratio *is within the range [1.00% ; 2.50%)*
3, when *MS* ratio *is within the range [2.50% ; 8.00%)*
4, when *MS* ratio *≥ 8.00%*

4.2 Adjustment of the impact score

1. If number of policyholders in case of life (re)insurance undertakings or number of insured risks during a year in case of non-life (re)insurance undertakings is at least 5.00% of all policyholders in case of life (re)insurance undertakings or all insured risks during a year in case of non-life (re)insurance undertakings, impact score is revised 1 class down.
2. If in opinion of the supervisory authority impact assessment grade does not entirely reflect possible influence of financial problems and potential bankruptcy of the (re)insurance undertaking on insurance market or institutions on this market, impact score is revised down.

5. Prioritisation of supervisory activities and measures

The intensity of supervisory activities and measures is dependent on the risk score and the impact score.

Diagram 6. Intensity of supervisory activities and measures

INTENSITY OF SUPERVISORY ACTIVITIES AND MEASURES

Impact score				
high **4,00**	**medium-high**	**medium-high**	**high**	**high**
medium-high **3,00**	**medium-low**	**medium-high**	**medium-high**	**high**
medium-low **2,00**	**low**	**medium-low**	**medium-high**	**medium-high**
low **1,00**	**low**	**low**	**medium-low**	**medium-high**
Risk score	Good score low risk **1,00 – 1,74**	Satisfactory score medium-low risk **1,75 - 2,49**	Reservations-raising score medium-high risk **2,50 – 3,24**	Unsatisfacory score high risk **3,25 – 4,00**

Supervisory activities and measures are based on the risk score and the impact score obtained by the (re)insurance undertaking. They are determined individually for each (re)insurance undertaking, take into account other circumstances and other supervisory activities.

Below are enumerated the supervisory activities and measures that may be initiated by the supervisory authority after the (re)insurance undertaking gets a specific risk score and an impact score. The above does not exclude the possibility of applying other ad hoc means of supervision if, in a given case, the need for their application is identified.

Low intensity of supervisory activities and measures:

- Monitoring, under on-going supervision, of the reporting data and other information that may have influence on the risk level, capital adequacy and management assessment.
- Committing the (re)insurance undertaking to carry out risk assessment once a year based on annual data.
- Committing the (re)insurance undertaking to carry out stress tests once a year in line with the Polish Financial Supervision Authority guidelines.

Medium-low intensity of supervisory activities and measures:

- Supervisory activities and measures specified for the low intensity of supervisory activities and measures.
- Demand for additional explanations or periodical provision of the specified data by the (re)insurance undertaking within the scopes identified as endangered risk areas (Article 207 of the Insurance Act).
- Review of policies and procedures of the (re)insurance undertaking regarding risk management.

Medium-high intensity of supervisory activities and measures:

- Supervisory activities and measures specified for the medium-low intensity of supervisory activities and measures.
- Committing the (re)insurance undertaking to specify the short- and long-term risk mitigating actions in the risk areas identified as threatened.
- Carrying out a thematic on-site inspection of the (re)insurance undertaking (on-site inspection in the risk areas identified as threatened).
- Committing the (re)insurance undertaking to carry out stress tests twice a year (additional stress tests for the endangered risks).

High intensity of supervisory activities and measures:

- Supervisory activities and measures specified for the medium-high intensity of supervisory activities and measures.
- Carrying out a comprehensive on-site inspection of the (re)insurance undertaking.
- Demanding submission of a recovery plan by the undertaking in case the interests of the insured are threatened (Article 187 (8) of the Insurance Act).
- Committing the undertaking to maintain its own funds, throughout the period covered by the recovery plan, at the level higher than the required solvency margin (Article 187 of the Act).
- Committing the undertaking to calculate its own funds, applying for that lower value of elements used for their calculation than would result from the adopted valuation rules, in particular when significant changes in the market value of these elements have been revealed within the last financial year (Article 187 of the Insurance Act).
- Committing the undertaking to limit the reinsurance impact on calculating the value of the required solvency margin if:
  - significant amendments to the concluded reinsurance contracts have occurred in the last financial year,
  - the reinsurance contracts concluded show that there is no actual transfer of risk or that it is insignificant (Article 187 of the Insurance Act).
- Establishing of a receivership (Article 189 of the Insurance Act).
- Imposing fines on the (re)insurance undertaking, management board members, proxies, suspending them, requesting for recalling them, convening General Meeting, Management Board or Supervisory Board meeting (Article 212 of the Insurance Act).
- Obliging the undertaking to commission to chartered auditors the examination of the correctness and reliability of all financial statements drawn up by that undertaking, and examination of its accounting books (Article 206 of the Insurance Act).
- Prohibiting the (re)insurance undertaking from free disposal of assets or limiting its scope of activity (in cases provided for in Article 187 of the Insurance Act).
- Prohibiting the (re)insurance undertaking from payment of dividends (in situations stipulated in Article 187 of the Insurance Act).
- Withdrawal of the authorisation to pursue insurance activity (Article 101 of the Insurance Act).

Enclosure 1. Methodology of stress tests in the insurance sector for 2013 – basic information

(Re)insurance undertakings should use valuation methods prescribed in the current principles of accounting and not in the 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).

Stress tests are carried out based on the assumption that shock happens on the last day of the stress test period. Then an immediate impact of shocks on the financial situation of the (re)insurance undertaking is assessed. If exposure of a particular risk during a year differs significantly from risk exposure on the day, when stress tests are performed, the (re)insurance undertaking should perform additional stress test taking into account an average risk exposure during a year (with at least a quarterly frequency).

Shocks for the interest rate risk, equity risk, credit risk – assets concentration, credit risk – reinsurer's bankruptcy, mortality risk, longevity risk, reserve risk, revision risk and catastrophic risk, concern risk exposure on the day when stress tests are performed, whereas shocks for the lapse risk and expense risk concern events occurred during last four quarters before the day when stress tests are performed.

When carrying out stress tests for catastrophic risk, credit risk – reinsurer's bankruptcy, credit risk – assets concentration, expense risk and lapse risk, it is assumed that: all claims have been paid, all expenses have been incurred, the settlements with defaulted counterparties were settled.

An assessment of a realisation of a particular stress test is carried out independently from the other stress tests (shocks occur independently from each other).

(Re)Insurance undertakings should take into account hedged instruments, including but not limited to derivatives, outward reinsurance.

In case of currencies other than PLN, (re)insurance undertakings should apply the same shocks as for PLN. No change in the FX rates should be assumed in stress tests.

As a simplification, data which is not material (when the share of one product (investment) is below 1% of total gross technical provisions (total investments)) may be omitted. However, total amount of these products (investments) should not exceed 5% share of total technical provisions (total investments). These should not influence on the (re)insurance undertaking's solvency position.

(Re)insurance undertakings should consider two scenarios (according to specification) when carrying out stress tests for interest rate risk, catastrophic risk (non-life (re)insurance undertakings) and lapse risk (life (re)insurance undertakings). And then (re)insurance undertakings should present the more severe scenario (for each mentioned types of risk).

Table 1. Shocks' intensity for specific risks

<table>
<tr><th>Risk type</th><th colspan="11">Shocks</th></tr>
<tr><td rowspan="7">Interest rate risk</td><td colspan="11">Maturity (in years)</td></tr>
<tr><td>Maturity</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td></tr>
<tr><td>Down shock</td><td>-50%</td><td>-50%</td><td>-50%</td><td>-50%</td><td>-50%</td><td>-49%</td><td>-48%</td><td>-48%</td><td>-48%</td><td>-48%</td></tr>
<tr><td>Up shock</td><td>95%</td><td>95%</td><td>95%</td><td>95%</td><td>91%</td><td>89%</td><td>86%</td><td>84%</td><td>84%</td><td>83%</td></tr>
<tr><td>Maturity</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20+</td></tr>
<tr><td>Down shock</td><td>-48%</td><td>-48%</td><td>-48%</td><td>-48%</td><td>-48%</td><td>-47%</td><td>-46%</td><td>-45%</td><td>-43%</td><td>-42%</td></tr>
<tr><td>Up shock</td><td>81%</td><td>80%</td><td>80%</td><td>79%</td><td>77%</td><td>75%</td><td>72%</td><td>68%</td><td>65%</td><td>62%</td></tr>
<tr><td>Stock price risk</td><td colspan="11">Stocks listed in regulated and non-regulated market-56%;
Stocks and shares in related (re)insurance undertakings other than domestic: -28%;
Stocks and shares in related domestic (re)insurance undertakings: changing in a (re)insurance undertaking's own funds for the most severe stress test.</td></tr>
<tr><td>Expense risk</td><td colspan="11">Increase of historical expenses by 10% in the last 4 quarters: acquisition expenses, administrative expenses and claims management expenses.</td></tr>
<tr><td>Mortality risk</td><td colspan="11">Increase in the mortality rates by 15% for each age group.</td></tr>
<tr><td>Longevity risk</td><td colspan="11">Decrease in the mortality rates by 20% for each age group.</td></tr>
<tr><td>Lapse risk</td><td colspan="11">Down shock – decrease a lapse rate by 78%,
Up shock – increase a lapse rate by 78%.</td></tr>
<tr><td>Catastrophic risk</td><td colspan="11">• Flood, which caused losses equal to 0.16% of the sum of sums insured for all insurance contract that covers a flood risk;
• Man-made catastrophe or a materialization of the highest insured risk.</td></tr>
<tr><td>Credit risk – reinsurer's bankruptcy</td><td colspan="11">Bankruptcy of the biggest reinsurer, measured as a reinsurer share in claims outstanding provisions and receivables (at the date when stress tests are performed), with the probability of default and the loss given default dependant on a reinsurer's rating.</td></tr>
<tr><td>Credit risk – assets concentration</td><td colspan="11">Bankruptcy of a counterparty (other than central government or an entity which shares or other assets are deducted from (re)insurance undertaking's own funds) in which (re)insurance undertaking has a high concentration of investments, assuming – at the same time – that the probability of default and loss given default depends on an issuer's rating, whereas the loss given default for equities equals 0%.</td></tr>
<tr><td>Reserve risk</td><td colspan="11">Increase of 8.2% in the value of provisions for claims outstanding and increase of provision for unexpired risks by 8.2% of provision for unearned premiums for motor third party liability insurance.</td></tr>
<tr><td>Revision risk</td><td colspan="11">Increase of 3% in the value of future annuity payments that may be raised as the result of a change in the health condition of the person receiving the annuity, or changes resulting from legal regulations or court rulings.</td></tr>
</table>

Enclosure 2. Methodology of calculating aggregated stress test

The aggregation of the financial consequences of the occurrence of all shocks examined in the stress tests is performed separately for the guarantee fund, (required) solvency margins and own funds (or equity for small mutual insurance undertakings).

$Guarantee\_fund_{after\_stress}$ = max (1/3 $Solvency\_margin_{after\_stress}$; minimum _Guarantee_fund)

$Solvency\_margin_{after\_stress} = Solvency\_margin_{before\_stress} - \sum_i \left(Solvency\_margin_{before\_stress} - Solvency\_margin_{after\_stress,i} \right)$

where i means the risk for which the stress test was performed.

$Own\_Funds_{after\_stress}$ are determined by different algorithms for life and non-life (re)insurance undertaking.

$Equity_{after\ stress}$ – calculated in a similar way to $Own\_Funds_{after\_stress}$ for (re)insurance undertaking other than small mutual insurance undertaking, by replacing own funds with equity.

Life (re)insurance undertaking

$$Own\_Funds_{after\_stress} = Own\_Funds_{before\_stress} - \sqrt{\sum_{r,c} corr\ agreg_{r,c} * agreg_r * agreg_c}$$

where:

$agreg_i$ - changes with a minus sign in the value of own funds after the occurrence of the stress test for the risks *i* considered in the overall risk module for life (re)insurance undertakings (market risk and the life insurance risk).

$corr\ agreg_{r,c}$	*market risk*	*life insurance risk*
market risk	1.00	0.25
life insurance risk	0.25	1.00

Market risk

$$Market\ risk = \begin{cases} \sqrt{\sum_{r,c} corr\ market^{up}_{r,c} * market_r * market_c}\ , if\ the\ shock\ for\ interest\ rate\ risk\ was\ the\ increase\ in\ interest\ rate \\ \sqrt{\sum_{r,c} corr\ market^{down}_{r,c} * market_r * market_c}\ , if\ the\ shock\ for\ interest\ rate\ risk\ was\ the\ increase\ in\ interest\ rate \end{cases}$$

where $market_i$ is changes with a minus sign in the value of own funds after the occurrence of the stress test for the risks considered in the market risk module.

$corr\ market^{down}_{r,c}$	*interest rate risk*	*equity risk*	*credit risk – asset concentration risk*
interest rate risk	1.00	0.50	0.00
equity risk	0.50	1.00	0.00
credit risk – asset	0.00	0.00	1.00

concentration risk			

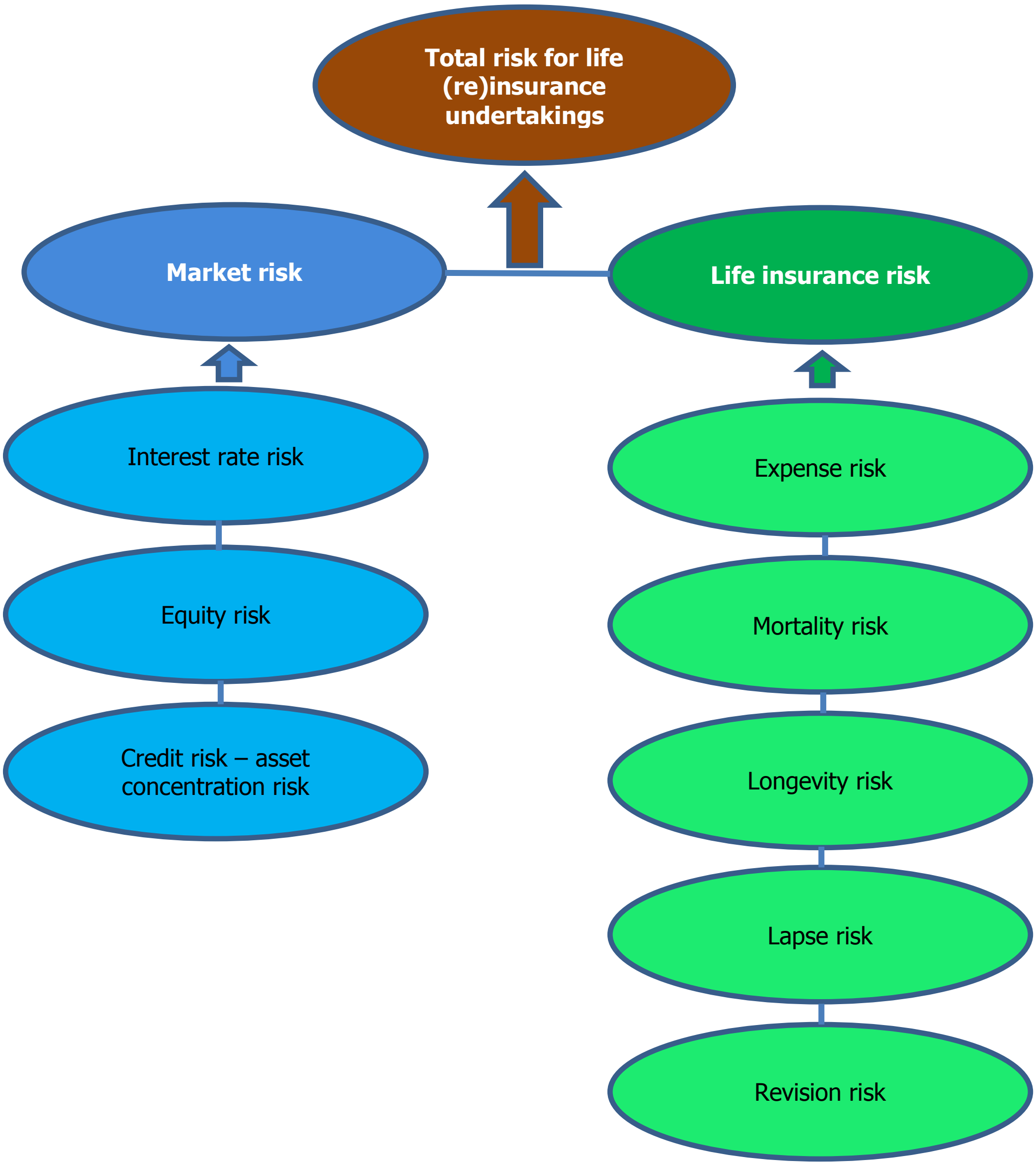
$corr\ market^{up}_{r,c}$	*interest rate risk*	*equity risk*	*credit risk – asset concentration risk*
interest rate risk	1.00	0.00	0.00
equity risk	0.00	1.00	0.00
credit risk – asset concentration risk	0.00	0.00	1.00

Life insurance risk

$$Life\ insurance\ risk = \sqrt{\sum_{r,c} corr\ life_{r,c} * life_r * life_c}$$

where $life_i$ - value changes with a minus sign of own funds after the occurrence of the stress test for the risks considered in the life insurance risks module.

$corr\ life_{r,c}$	*expense risk*	*mortality risk*	*longevity risk*	*lapse risk*	*revision risk*
expense risk	1.00	0.25	0.25	0.50	0.50
mortality risk	0.25	1.00	-0.25	0.00	0.00
longevity risk	0.25	-0.25	1.00	0.25	0.25
lapse risk	0.50	0.00	0.25	1.00	0.00
revision risk	0.50	0.00	0.25	0.00	1.00



Non-life (re)insurance company

$$Own\_Funds_{after\_stress} = Own\_Funds_{before\_stress} - \sqrt{\sum_{r,c} corr\ agreg_{r,c} * agreg_r * agreg_c}$$

where:

agreg$_i$ - changes with a minus sign in the value of own funds after the occurrence of stress test for the risks *i* considered in the overall risk module for non-life (re)insurance undertakings (market risk, credit risk – the reinsurer's bankruptcy and non-life insurance risk).

$corr\ agreg_{r,c}$	*market risk*	*credit risk - the reinsurer's bankruptcy*	*non-life insurance risk*
market risk	1.00	0.25	0.25
credit risk – the reinsurer's	0.25	1.00	0.50

bankruptcy			
non-life insurance risk	0.25	0.50	1.00

Market risk

$$Market\ risk = \begin{cases} \sqrt{\sum_{r,c} corr\ market_{r,c}^{up} * market_r\ * market_c}\ , if\ the\ shock\ for\ interest\ rate\ risk\ was\ the\ increase\ in\ interest\ rate \\ \sqrt{\sum_{r,c} corr\ market_{r,c}^{down} * market_r\ * market_c}\ , if\ the\ shock\ for\ interest\ rate\ risk\ was\ the\ increase\ in\ interest\ rate \end{cases}$$

where *market$_i$* is changes with a minus sign in the value of own funds after the occurrence of stress test for the risks considered in the market risk module.

$corr\ market_{r,c}^{down}$	*interest rate risk*	*equity risk*	*credit risk – asset concentration risk*
interest rate risk	1.00	0.50	0.00
equity risk	0.50	1.00	0.00
credit risk – asset concentration risk	0.00	0.00	1.00

$corr\ market_{r,c}^{up}$	*interest rate risk*	*equity risk*	*credit risk – asset concentration risk*
interest rate risk	1.00	0.00	0.00
equity risk	0.00	1.00	0.00
credit risk – asset concentration risk	0.00	0.00	1.00

Non-life insurance risk

$$non-life\ insurance\ risk = \sqrt{\sum_{r,c} corr\ non-life_{r,c} * non-life_r * non-life_c}$$

where *non – life$_i$ is* value changes of own funds with a minus sign after the occurrence of stress test for the risks considered in the non-life insurance risk module.

$corr\ non-life_{r,c}$	*expense risk*	*reserve risk*	*catastrophic risk*	*longevity risk*	*revision risk*
expense risk	1.00	0.50	0.25	0.25	0.50

reserve risk	0.50	1.00	0.25	0.00	0.00
catastrophic risk	0.25	0.25	1.00	0.00	0.00
longevity risk	0.25	0.00	0.00	1.00	0.25
revision risk	0.50	0.00	0.00	0.25	1.00

Enclosure 3. Items from financial statements and statistical reports of insurance/reinsurance companies[6] and items from Risk Assessment Framework (BION) for Insurance and Reinsurance Undertakings adopted for ratios calculation for the purpose of the Risk Assessment Framework

Detailed list	Item number and name in the report/item in Risk Assessment Framework (BION)
Assets covering technical provisions	**Assets covering TP (quarterly report)** **Non-life (re)insurance undertakings** **(13.1.1)B** Total assets
Assets covering technical provisions – non unit – linked	**Assets covering TP (quarterly report)** **Life (re)insurance undertakings** **(14.1.1)B** Total assets
Assets covering technical provisions – unit - linked	**Assets covering TP (quarterly report)** **Life (re)insurance undertakings** **(14.4.1)B** Total assets
Assets covering technical provisions – *monthly data*	**Monthly reporting**: **Life (re)insurance undertakings** Assets covering technical provisions for insurance other than when the investment risk is borne by policyholders (Assets1)+ Assets covering technical provisions under life insurance agreements when the investment risk is borne by policyholders (Assets2) **Non-life (re)insurance undertakings** Assets covering technical provisions for insurance other than when the investment risk is borne by policyholders (Assets1)
Assets covering technical provisions in X currency upon conversion to PLN	**Matching assets and TP (quarterly report)** **Life (re)insurance undertakings** **(14.2.1)II.4.** Assets covering technical provisions denominated in X currency upon conversion to PLN **Non-life (re)insurance undertakings** **(13.2.1)II.4.** Assets covering technical provisions denominated in X currency upon conversion to PLN
Assets held for unit – linked funds$_{\text{average for 5 quarters}}$	$0.2 * \sum_{k=0}^{4} \begin{matrix}(\mathbf{1.1})\mathbf{C}\ \text{Net assets of life insurance funds whereby the investment risk}, \\ \text{is borne by policyholders}\ _{i-k}\end{matrix}$
Guarantee fund	**Declaration of solvency (quarterly report)** **Life (re)insurance undertakings** **(13.1.1)23** Guarantee fund **Non-life (re)insurance undertakings** **(12.1)19** Guarantee fund
Guarantee fund $_{\text{after stress}}$	**Sheets with stress test results - Declaration of solvency** **Life (re)insurance undertakings** **(13.1)23** Guarantee fund **Non-life (re)insurance undertakings** **(12.1)19** Guarantee fund
Guarantee fund – *monthly data*	**Monthly reporting**: Guarantee fund (GF)
Equity Equity $_{\text{before stress}}$	**(1.2)A** Equity
Equity $_{\text{after stress}}$	**Sheets with stress test results (1.2)A** Equity

[6] Regulation of the Minister of Finance of 16th December 2010 on quarterly and additional annual financial and statistical statements (Journal of Laws No. 248, Item 1654)

Detailed list	Item number and name in the report/item in Risk Assessment Framework (BION)
Equity $_{\text{average for last 5 quarters}}$	$0{,}2 * \sum_{k=0}^{4} (\mathbf{1.2})\mathbf{A}\ \text{Equity}_{i-k}$
Revaluation reserve $_{\text{annual movement}}$	**(1.2)A.V** Revaluation reserve $_{\text{Year(i)}}$ - Revaluation reserve $_{\text{Year(i-1)}}$
Administrative costs $_{\text{from last 12 months}}$	**Life (re)insurance undertakings** **(3.1)VIII.2** Administrative costs $_{\text{Year(i) Q(y)}}$ + Administrative costs $_{\text{Year(i-1) Q(4)}}$ - Administrative costs $_{\text{Year(i-1) Q(y)}}$ **Non-life (re)insurance undertakings** **(3.1)VII.2** Administrative costs $_{\text{Year(i) Q(y)}}$ + Administrative costs $_{\text{Year(i-1) Q(4)}}$ - Administrative costs $_{\text{Year(i-1) Q(y)}}$
Acquisition costs $_{\text{for last 12 months}}$	**Life (re)insurance undertakings** **(3.1)VIII.1** Acquisition costs $_{\text{Year(i) Q(y)}}$ + Acquisition costs $_{\text{Year(i-1) Q(4)}}$ - Acquisition costs $_{\text{Year(i-1) Q(y)}}$ **Non-life (re)insurance undertakings** **(3.1)VII.1** Acquisition costs $_{\text{Year(i) Q(y)}}$ + Acquisition costs $_{\text{Year(i-1) Q(4)}}$ - Acquisition costs $_{\text{Year(i-1) Q(y)}}$
Number of insurance policies in individual insurance	Risk Assessment Framework questionnaire
Number of complaints for insurance company	**(16.1)** Number of complaints (total)
Number of policyholders	**(13.2)N** Number of policyholders as at the balance sheet date
Number of insured risks in group insurance	Risk Assessment Framework questionnaire
Investments (other than held for unit – linked products)	**(1.1)B** Investments
Investments (other than assets held for unit – linked funds) $_{\text{average for 5 quarters}}$ Investments $_{\text{average for 5 quarters}}$	$0{,}2 * \sum_{k=0}^{4} (\mathbf{1.1})\mathbf{B}\ \text{Investments}_{i-k}$
Investments in subsidiaries	**(1.1)B.II** Investments in subordinated undertakings
Solvency margin	**Declaration of solvency (quarterly report)** **Life (re)insurance undertakings** **(13.1.1)19** Solvency margin in Life (re)insurance undertakings **Non-life (re)insurance undertakings** **(12.1)15** Solvency margin
Solvency margin $_{\text{after stress}}$	**Sheets with stress test results - Declaration of solvency** **Life (re)insurance undertakings** **(13.1)19** Solvency margin in Life (re)insurance undertakings **Non-life (re)insurance undertakings** **(12.1)17** Solvency margin
Solvency margin – monthly data	**Monthly reporting**: Solvency margin (SM)
Reinsurance receivables	**(1.1)D.II** Reinsurance receivables
Claims $_{\text{for last 12 months}}$	**Life (re)insurance undertakings** **(3.1)V** Claims $_{\text{Year(i) Q(y)}}$ + Claims $_{\text{Year(i-1) Q(4)}}$ - Claims $_{\text{Year(i-1) Q(y)}}$ **Non-life (re)insurance undertakings** **(3.1)IV** Claims $_{\text{Year(i) Q(y)}}$ + Claims $_{\text{Year(i-1) Q(4)}}$ - Claims $_{\text{Year(i-1) Q(y)}}$
Gross claims under	**Non-life insurance undertakings**

Detailed list	Item number and name in the report/item in Risk Assessment Framework (BION)
incurred losses by year i (inclusive)	**(13.2)** I. Gross claims paid excluding returns, recourses and recoveries under incurred losses by year *i* – II. Returns, recourses and recoveries included in the gross claims paid from the technical account under incurred losses by year *i* item+ **(13.4)** I. Gross claims paid excluding returns, recourses and recoveries under incurred losses by year *i* – II. Returns, recourses and recoveries included in the gross claims paid from the technical account under incurred losses by year *i* item
Provision for gross claims outstanding under incurred losses by year i (inclusive)	**Non-life insurance undertakings** **(13.2)** III. Provisions for gross claims outstanding under incurred losses by year i (inclusive)+ **(13.4)** III. Provisions for gross claims outstanding under incurred losses by year i (inclusive)
Technical provisions (balance sheet)	**(1.2)C** Technical provisions
Technical provisions	**Assets covering TP (quarterly report)** **Life (re)insurance undertakings** **(14.1.1)A** Gross technical provisions+**(14.4.1)A** Technical provisions **Non-life (re)insurance undertakings** **(13.1.1)A** Technical provisions
Gross technical provisions – non unit - linked	**Assets covering TP (quarterly report)** **Life (re)insurance undertakings** **(14.1.1)A** Technical provisions
Gross technical provisions – unit - linked	**Assets covering TP (quarterly report)** **Life (re)insurance undertakings** **(14.4.1)A** Technical provisions
Gross technical provisions – monthly data	**Monthly reporting**: **Life (re)insurance undertakings** Technical provisions for insurance other than when the investment risk is borne by policyholders (GTPB)+Technical provisions under life insurance agreements when the investment risk is borne by policyholders (GTPC) **Non-life (re)insurance undertakings** Technical provisions for insurance other than when the investment risk is borne by policyholders (GTPB)
Technical provisions in X currency upon conversion to PLN	**Matching assets and TP (quarterly report)** **Life (re)insurance undertakings** **(14.2.1) II.2.** Technical provisions denominated in X currency upon conversion to PLN **Non-life (re)insurance undertakings** **(13.2.1)II.2.** Technical provisions denominated in X currency upon conversion to PLN
Gross technical provisions from insurance *group i* for Life (re)insurance undertakings	**Technical provisions (quarterly report)** **(7.1) IX. Total gross provisions** from *class i*
Gross written premium	**(3.1)I.1** Gross written premium
Gross written premium $_{\text{for last 12 months}}$	**(3.1)I.1** Gross written premium $_{\text{Year(i) Q(y)}}$ + Gross written premium $_{\text{Year(i-1) Q(4)}}$ - Gross written premium $_{\text{Year(i-1) Q(y)}}$
Gross written premium from insurance *class i* for Non-life (re)insurance undertakings	**(5.1)I.1** Gross written premium from *class i*
Gross written premium from accounting *class i* for reinsurance undertakings	**(5.1)I.1** Gross written premium from *class i*

Detailed list	Item number and name in the report/item in Risk Assessment Framework (BION)
Gross written premium $_{\text{from financial plan}}$	**Financial plan** Gross written premium
Premium Earned – $_{\text{net of reinsurance for last 12 months}}$	**(3.1)I** Premiums $_{\text{Year(i) Q(y)}}$ + Premiums $_{\text{Year(i-1) Q(4)}}$ - Premiums $_{\text{Year(i-1) Q(y)}}$
Total assets	**(1.1)** Total assets
Total term deposits in entity	**Investments (quarterly report)** **Life (re)insurance undertakings** **(8.10.1)** Investment balance sheet value (non unit-linked funds) **Non-life (re)insurance undertakings** **(8.9.1)** Investment balance sheet value
Own funds	**Declaration of solvency (quarterly report)** **Life (re)insurance undertakings** **(13.1.1)14** Own funds **Non-life (re)insurance undertakings** **(12.1)13** Own funds
Own funds for GF coverage	**Declaration of solvency (quarterly report)** **Life (re)insurance undertakings** **(13.1.1)15** Own funds for guarantee fund coverage in accordance with Article 148a of the Insurance Act **Non-life (re)insurance undertakings** **(12.1)14** Own funds for guarantee fund coverage in accordance with Article 148a of the Insurance Act
Own funds $_{\text{after stress}}$	**Sheets with stress test results - Declaration of solvency** **Life (re)insurance undertakings** **(13.1)14** Own funds **Non-life (re)insurance undertakings** **(12.1)8** Own funds
Own funds – monthly data	**Monthly reporting**: Own funds (OF)
Reinsurers share in technical provisions	**(1.2)D** Reinsurers share in technical provisions (negative value)
Net financial result	**(1.2)A.VIII** Net profit (loss)
Net financial result $_{\text{for last 12 months}}$	**(1.2)A.VIII** Net profit (loss) $_{\text{Year(i) Q(y)}}$ + Net profit (loss) $_{\text{Year(i-1) Q(4)}}$ - Net profit (loss) $_{\text{Year(i-1) Q(y)}}$
Net financial result $_{\text{from financial plan}}$	**Financial plan** Financial result
Underwriting result $_{\text{for the last 12 months}}$	**Life (re)insurance undertakings** **(3.1)XIII** Life insurance underwriting result $_{\text{Year(i) Q(y)}}$ + Life insurance underwriting result $_{\text{Year(i-1) Q(4)}}$ - Life insurance underwriting result $_{\text{Year(i-1) Q(y)}}$ **Non-life (re)insurance undertakings** **(3.1)X** Non-life insurance underwriting result $_{\text{Year(i) Q(y)}}$ + Non-life insurance underwriting result $_{\text{Year(i-1) Q(4)}}$ - Non-life insurance underwriting result $_{\text{Year(i-1) Q(y)}}$
Underwriting result on life insurance from insurance class i	**(5.1)XIII** Underwriting result on life insurance from class i
Underwriting result on non-life insurance from z insurance group/ accounting class i	**(5.1)X** Underwriting result on non-life insurance from group/ class i
Investment result $_{\text{for 12 months}}$	**Life (re)insurance undertakings** **(3.1)II** Return on investment $_{\text{Year(i) Q(y)}}$ + Return on investment $_{\text{Year(i-1) Q(4)}}$ - Return on investment $_{\text{Year(i-1) Q(y)}}$ **+(3.1)III** Unrealised profit on investment $_{\text{Year(i) Q(y)}}$ + Unrealised profit on investment $_{\text{Year(i-1) Q(4)}}$ - Unrealised profit on investment $_{\text{Year(i-1) Q(y)}}$

Detailed list	Item number and name in the report/item in Risk Assessment Framework (BION)
	-(**(3.1)IX** Investment charges $_{Year(i)\ Q(y)}$ + Investment charges $_{Year(i-1)\ Q(4)}$ - Investment charges $_{Year(i-1)\ Q(y)}$) -(**(3.1)X** Unrealised loss on investment $_{Year(i)\ Q(y)}$ + Unrealised loss on investment $_{Year(i-1)\ Q(4)}$ - Unrealised loss on investment $_{Year(i-1)\ Q(y)}$) -(**(5.1)II** Return on investment gr 3 $_{Year(i)\ Q(y)}$ + Return on investment gr $_{Year(i-1)\ Q(4)}$ - Return on investment gr $_{Year(i-1)\ Q(y)}$) **-(****(5.1)III** Unrealised profit on investment gr 3 $_{Year(i)\ Q(y)}$ + Unrealised profit on investment gr 3 $_{Year(i-1)\ Q(4)}$ - Unrealised profit on investment gr 3 $_{Year(i-1)\ Q(y)}$) +(**(5.1)IX** Investment charges gr 3 $_{Year(i)\ Q(y)}$ + Investment charges gr 3 $_{Year(i-1)\ Q(4)}$ - Investment charges gr 3 $_{Year(i-1)\ Q(y)}$) +(**(5.1)X** Unrealised loss on investment gr 3 $_{Year(i)\ Q(y)}$ + Unrealised loss on investment gr 3 $_{Year(i-1)\ Q(4)}$ - Unrealised loss on investment gr 3 $_{Year(i-1)\ Q(y)}$) **Non-life (re)insurance undertakings** **(2.1)II** Return on investment $_{Year(i)\ Q(y)}$ + Return on investment $_{Year(i-1)\ Q(4)}$ - Return on investment $_{Year(i-1)\ Q(y)}$ **+(2.1)III** Unrealised profit on investment $_{Year(i)\ Q(y)}$ + Unrealised profit on investment $_{Year(i-1)\ Q(4)}$ - Unrealised profit on investment $_{Year(i-1)\ Q(y)}$ -(**(2.1)V** Investment charges $_{Year(i)\ Q(y)}$ + Investment charges $_{Year(i-1)\ Q(4)}$ - Investment charges $_{Year(i-1)\ Q(y)}$) -(**(2.1)VI** Unrealised loss on investment $_{Year(i)\ Q(y)}$ + Unrealised loss on investment $_{Year(i-1)\ Q(4)}$ - Unrealised loss on investment $_{Year(i-1)\ Q(y)}$)
Deposits received from reinsurers	**(1.2)G** Deposits received from reinsurers

Enclosure 4. Weights of areas and indicators used during determining the risk score according to Risk Assessment Framework (BION) for Insurance and Reinsurance Undertakings

	Area/indicator	Life (re)insurance			Non-life insurance			Non-life reinsurance		
		Weight	Weight within the group	Overall weight	Weight	Weight within the group	Overall weight	Weight	Weight within the group	Overall weight
I.	**Aggregated risk grade**	**100**	**100.0%**	**20.0%**	**100**	**100.0%**	**20.0%**	**100**	**100.0%**	**20.0%**
1.	**Credit risk**	**25**	**25.0%**	**5.0%**	**25**	**25.0%**	**5.0%**	**25**	**25.0%**	**5.0%**
1.	Concentration of term deposits in one entity	10	10.0%	2.0%	10	10.0%	2.0%	10	10.0%	2.0%
2.	Stress test result for asset concentration risk	5	5.0%	1.0%	5	5.0%	1.0%	5	5.0%	1.0%
3.	Exposure of reinsurance-related credit risk	5	5.0%	1.0%	5	5.0%	1.0%	5	5.0%	1.0%
4.	Share of investments in subsidiaries	5	5.0%	1.0%	5	5.0%	1.0%	5	5.0%	1.0%
2.	**Market risk**	**30**	**30.0%**	**6.0%**	**30**	**30.0%**	**6.0%**	**30**	**30.0%**	**6.0%**
5.	Stress test result for interest rate risk	13	13.0%	2.6%	13	13.0%	2.6%	13	13.0%	2.6%
6.	Stress test result for equity risk	13	13.0%	2.6%	13	13.0%	2.6%	13	13.0%	2.6%
7.	Exposure to FX risk	4	4.0%	0.8%	4	4.0%	0.8%	4	4.0%	0.8%
3.	**Insurance risk**	**45**	**45.0%**	**9.0%**	**45**	**45.0%**	**9.0%**	**45**	**45.0%**	**9.0%**
8.	Stress test result for mortality risk (only for life (re)insurance undertakings)	9	9.0%	1.8%						
9.	Stress test result for longevity risk	3	3.0%	0.6%	5	5.0%	1.0%	5	5.0%	1.0%
10.	Stress test result for revision risk	3	3.0%	0.6%	5	5.0%	1.0%	5	5.0%	1.0%
11.	Stress test result for lapse risk (only for life (re)insurance undertakings)	15	15.0%	3.0%						
12.	Loss ratio (only for non-life (re)insurance undertakings)				5	5.0%	1.0%	5	5.0%	1.0%
13.	Adequacy of provisions for claims outstanding (only for non-life insurance undertakings)				5	5.0%	1.0%			
14.	Stress test result for reserve risk (only for non-life (re)insurance undertakings)				5	5.0%	1.0%	5	5.0%	1.0%
15.	Stress test result for catastrophic risk (only for non-life (re)insurance undertakings)				13	13.0%	2.6%	15	15.0 %	3.0%
16.	Stress test result for expense risk	15	15.0%	3.0%	7	7.0%	1.4%	10	10.0%	2.0%
II.	**Capital adequacy grade**	**150**	**100.0%**	**30.0%**	**150**	**100.0%**	**30.0%**	**150**	**100.0%**	**30.0%**
17.	Assets covering technical	40	26.7%	8.0%	40	26.7%	8.0%	40	26.7%	8.0%

	Area/indicator	Life (re)insurance			Non-life insurance			Non-life reinsurance		
		Weight	Weight within the group	Overall weight	Weight	Weight within the group	Overall weight	Weight	Weight within the group	Overall weight
	provisions									
18.	Technical provisions non-coverage with relevant assets over last 3 years	15	10.0%	3.0%	15	10.0%	3.0%	15	10.0%	3.0%
19.	Capital requirements coverage ratio	40	26.7%	8.0%	40	26.7%	8.0%	40	26.7%	8.0%
20.	Non-coverage of capital requirements with relevant own funds over the last 3 years	15	10.0%	3.0%	15	10.0%	3.0%	15	10.0%	3.0%
21.	Stress test result for aggregated risk	40	26.7%	8.0%	40	26.7%	8.0%	40	26.7%	8.0%
III.	**Governance grade**	**250**	**100.0%**	**50.0%**	**250**	**100.0%**	**50.0%**	**250**	**100.0%**	**50.0%**
1.	**Governance quantitative assessment grade**	**175**	**70.0%**	**35.0%**	**175**	**70.0%**	**35.0%**	**175**	**70.0%**	**35.0%**
22.	Return on equity	20	8.0%	4.0%	20	8.0%	4.0%	20	8.0%	4.0%
23.	Return on insurance underwriting activity	30	12.0%	6.0%	30	12.0%	6.0%	30	12.0%	6.0%
24.	Return on investment	20	8.0%	4.0%	20	8.0%	4.0%	20	8.0%	4.0%
25.	Acquisition costs ratio	10	4.0%	2.0%	10	4.0%	2.0%	10	4.0%	2.0%
26.	Administrative costs ratio	10	4.0%	2.0%	10	4.0%	2.0%	10	4.0%	2.0%
27.	Total technical earnings to total technical result for insurance classes	10	4.0%	2.0%	10	4.0%	2.0%	10	4.0%	2.0%
28.	Share of insurance classes with technical earnings	10	4.0%	2.0%	10	4.0%	2.0%	10	4.0%	2.0%
29.	Change in market share	20	8.0%	4.0%	20	8.0%	4.0%	20	8.0%	4.0%
30.	Extent of financial plan execution in terms of gross written premium	15	6.0%	3.0%	15	6.0%	3.0%	15	6.0%	3.0%
31.	Extent of financial plan execution in terms of financial result	10	4.0%	2.0%	10	4.0%	2.0%	10	4.0%	2.0%
32.	Relative total fines imposed by supervisory authority	10	4.0%	2.0%	10	4.0%	2.0%	10	4.0%	2.0%
33.	Level of complaints for (re)insurance undertaking	10	4.0%	2.0%	10	4.0%	2.0%	10	4.0%	2.0%
2.	**Governance qualitative assessment grade**	**75**	**30.0%**	**15.0%**	**75**	**30.0%**	**15.0%**	**75**	**30.0%**	**15.0%**
1.	Strategy	6.00	2.4%	1.2%	6.00	2.4%	1.2%	6.00	2.4%	1.2%
2.	Organizational structure	2.25	0.9%	0.5%	2.25	0.9%	0.5%	2.25	0.9%	0.5%
3.	Products/business	7.50	3.0%	1.5%	7.50	3.0%	1.5%	7.50	3.0%	1.5%
4.	Key persons	6.00	2.4%	1.2%	6.00	2.4%	1.2%	6.00	2.4%	1.2%
5.	Ownership	4.50	1.8%	0.9%	4.50	1.8%	0.9%	4.50	1.8%	0.9%
6.	Relationship with customers	2.50	1.0%	0.5%	2.50	1.0%	0.5%	2.50	1.0%	0.5%
7.	Outsourcing	3.00	1.2%	0.6%	3.00	1.2%	0.6%	3.00	1.2%	0.6%
8.	IT systems	2.00	0.8%	0.4%	2.00	0.8%	0.4%	2.00	0.8%	0.4%
9.	Reporting	7.50	3.0%	1.5%	7.50	3.0%	1.5%	7.50	3.0%	1.5%
10.	Relationship with supervisory authority	6.00	2.4%	1.2%	6.00	2.4%	1.2%	6.00	2.4%	1.2%

	Area/indicator	Life (re)insurance			Non-life insurance			Non-life reinsurance		
		Weight	Weight within the group	Overall weight	Weight	Weight within the group	Overall weight	Weight	Weight within the group	Overall weight
11.	Internal control/internal audit	6.00	2.4%	1.2%	6.00	2.4%	1.2%	6.00	2.4%	1,2%
12.	Business continuity plan	2.25	0.9%	0.5%	2.25	0.9%	0.5%	2.25	0.9%	0,5%
13.	Reinsurance	4.50	1.8%	0.9%	4.50	1.8%	0.9%	4.50	1.8%	0,9%
14.	Asset management	6.00	2.4%	1.2%	6.00	2.4%	1.2%	6.00	2.4%	1,2%
15.	Risk management	5.00	2.0%	1.0%	5.00	2.0%	1.0%	5.00	2.0%	1,0%
16.	Solvency II preparation	4.00	1.6%	0.8%	4.00	1.6%	0.8%	4.00	1.6%	0,8%
RISK SCORE		**500**		**100%**	**500**		**100%**		**500**	

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