11 RISK MANAGEMENT⁷⁰

Below we describe the risk and capital management system and the significant risks to which the Sava Re Group is exposed. These areas will be presented in more detail also in the Solvency and financial condition report of Sava Re as at 31 December 2017 that will be published on the Company's website not later than on 7 May 2018, and in the Solvency and financial condition report of the Group as at 31 December 2017 that will be published on the website not later than on 18 June 2018.

11.1 Risk management system

strategic objectives and to ensuring the long-term solvency of the Group. Therefore, the Sava Re Group is continuously upgrading the risk management system both in all Group companies and at the Group level.

The Group companies' strong risk culture and awareness of the risks to which they are exposed is essential to the security and financial soundness of the companies and the Group as a whole. In order to establish good risk management practices, the Group promotes a risk management culture with appropriately defined remuneration for employees, employee training, and relevant internal information flow, both at the individual company and Group level.

The Sava Re Group has implemented a risk strategy that defines the Group's risk appetite and policies that cover the entire framework of risk management, own risk and solvency assessments, and risk management for each risk category. Based on the Group's risk strategy and policies, individual Group companies set up their own risk strategies and policies, taking into account their specificities.

The risk management system both in individual Group companies and at the Group level is subject to continuous improvements. Particular attention is paid to:

- clearly-expressed risk appetite in the framework of the risk strategy and on this basis also operational limits,
- development of own risk assessment models and upgrading of the own risk and solvency assessment (hereinafter: ORSA),

- integration of the ORSA and risk strategy in the framework of business planning and shaping of the business strategy,
- integration of risk management processes into business processes,
- establishment of high risk management standards in large Group companies and at least minimal standards in small Group companies.

In compliance with the requirements of the Solvency II regime a number of activities were conducted in 2017, both in all EU companies and at the Group level, namely:

- calculation of eligible own funds, the solvency capital requirement and the solvency ratio in line with the standard Solvency II formula as at 31 December 2016;
- the first official reporting on solvency and financial condition in line with Solvency II as at 31 December 2016. The calculations revealed a high level of capitalisation of the Group. The Company's Solvency and financial condition report was reviewed also by external auditors;
- the first regular supervisory report prepared in 2017;
- we conducted and reported the ORSA, which is conducted at least on an annual basis, as required by legislation. ORSA includes the development of own models for quantifying risks with an emphasis on measuring underwriting and market risks, which are the key risks to which the Group is exposed.

11.1.1 Risk management policies

In order to systematise risk management, the Sava Re Group shaped and adopted in 2015, at Group level, policies that cover the entire framework of risk management, own risk and solvency assessments, and risk management for each risk category. The policies provide

11.1.2 Risk management organisation

An appropriate organisational structure and a clear segregation of responsibilities are key to systematic risk management.

The efficient functioning of the risk management system is primarily the responsibility of the Sava Re management board and the management board of the individual subsidiary. To ensure efficient risk management, the Group uses a three-lines-of-defence model, which clearly segregates responsibilities and tasks among the lines:

- the first line of defence constitutes all organisational units with operational responsibilities (e.g. (re)insurance underwriting, sales, claims management, asset management, accounting, controlling and human resources and others);
- the second line of defence consists of three key functions (the risk management function, actuarial function, compliance function) and the risk management committee, if set up in the company; and
- the third line of defence, which consists of the internal audit function.

guidance for all Group companies and serve as the basis on which they shape, with consideration of local specificities, their own policies for individual risk management areas. The policies are examined on a regular basis (at least once annually).

The Group's risk management system has been set up based on the top down principle, taking into account the specificities of each individual company.

The management board of each company plays a key role and bears ultimate responsibility for the effectiveness of established risk management processes and their alignment with the Group's standards and the applicable legislation. In this regard, the management board is primarily responsible for:

- the establishment of the risk strategy and approval of risk tolerance limits and operational limits,
- the adoption of policies relating to the risk management system,
- the overseeing of the risk management process and risk-based decisions,
- the monitoring of operations in terms of risk and ensuring that risks are considered when taking business decisions.

The supervisory board of each individual company approves the risk strategy, risk management policies and the appointment of key function holders. In addition, the supervisory board analyses periodic reports relating to risks. A risk committee has been set up within the supervisory board to provide expertise in decision-making, in particular with regard to risk management in the Company and in the Sava Re Group. The first line of defence of each individual Group company involves all company employees responsible for ensuring that operational tasks are performed in a manner that reduces or eliminates risks. Additionally, risk owners are responsible for individual risks listed in the risk register. Departmental executive directors, line and service directors are tasked with ensuring that the operational performance of the processes for which they are responsible is conducted in a manner that reduces or eliminates risks, while taking into account the frameworks laid down in the risk strategy. The first line of defence is also responsible for monitoring and measuring risks, preparing risk reports for individual areas of risk and identifying new risks.

The Group's and each individual company's second line of defence comprises three key functions (risk-management function, actuarial function and compliance function). In addition, the Group's large members also have in place a risk management committee. The members of the risk management committee and key function holders are appointed by the management board; key function holder appointments also require the consent of the supervisory board. Each individual company ensures the independence of the key functions, which are organised as management support services and report directly to the management board. Their roles and responsibilities are defined in the policy of each key function or in the risk management policy that defines the risk management function.

The risk management function of each individual company is mainly responsible for setting up effective risk management processes and for the coordination of risk management processes already in place. It is involved in all stages of identification, assessment, monitoring, management and reporting of risks. It is also involved in the preparation of the risk strategy and the setting of risk tolerance limits. The risk management function holder regularly reports on the risks to the risk management committee, the management and the supervisory boards and the Group's risk management function holder, and works in cooperation with the risk management function on an ongoing basis. Furthermore, it offers support to the management board in decision-making (including in relation to the strategic decisions such as corporate strategy, mergers and acquisitions, and major projects and investments).

The main tasks of the actuarial function in the risk management system comprise expressing an opinion on the underwriting policy, expressing an opinion on the adequacy of reinsurance arrangements, and independent verification and challenging of technical provision calculations, including assumptions, methods and expert judgment areas. The actuarial function of each individual company works in cooperation with the Group's actuarial function.

The main duties of the compliance function relating to the risk management system are: identification, management and reporting of any instances of non-compliance with regulations, including monitoring of the legal environment, analysis of existing processes regarding their compliance with internal and external rules, and any changes in regulations.

Apart from the key functions, the second line of defence at Sava Re and Zavarovalnica Sava also consists of a risk management committee. The Sava Re risk management committee is also responsible for the Group level. Both committees include the representatives of key areas of the first line of defence, depending on the company's risk profile. The committee is primarily responsible for monitoring the risk profiles of the Group and individual companies, analysing risk reports and issuing recommendations to the management board. The risk management committee comprises an asset and liability management sub-committee.

The third line of defence consists of the internal audit function. The function operates at the individual company and Group levels and is completely independent from the business operations and other functions. In the context of the risk management system, the internal audit function holders are responsible for independent analysis and verification of the effectiveness of risk management processes in place, in particular for risk identification in line with the adopted Group-level strategy.

Good practices from Sava Re's risk management model and the organisation of risk management are also transferred to other Group companies.

Components of the risk management system 11.1.3

Risk management is integrated into all stages of business management and is composed of the following three key elements:

risk strategy,

- risk management processes within the first and second line of defence, and
- Own Risk and Solvency Assessment (hereinafter: ORSA).

The components of the Sava Re Group risk management system are shown in the figure below.

Risk strategy		
Risk management processes		ORSA process
First line of defence		Second line of defence
Pricing	Second line of defence	Analysis of risk profile
Underwriting process	Risk management function	Own assessment of solvency needs
Underwriting limits	Risk management committee	Continuous compliance
Investment policy and limits	Risk reports	Projections
Information and risk reports	Risk register	Stress tests and scenarios
Third line of defence		
Internal audit		

11.1.3.1 Risk strategy

In order to establish a solid risk management framework, the management board, with the consent of the Sava Re supervisory board, approves the Sava Re Group risk strategy, which defines the Group's risk strategy based on its risk bearing capacity. The applicable strategy was adopted in 2016 for the period 2017–2019 (the most important goals are noted in section 6.3 "Sava Re Group strategy highlights"). The individual Group companies draft their own risk strategy by taking into account the framework of the Group's risk strategy. The Group document sets:

- the risk appetite,
- permissible levels of individual performance indicators, and
- risk tolerance limits.

The basic principle of the Group is to pursue its business strategy and meet the key strategic objectives while maintaining an adequate capital level.

The Sava Re Group's risk appetite is based on four key areas:

- capital,
- liquidity,
- product profitability, and
- reputation.

Each individual Group company sets its risk strategy, risk tolerance limits and operational limits based on the Group's risk appetite. Risk tolerance limits are limits set for individual risk categories included in individual Group companies' risk profiles, and determine all approved deviations from planned values. These limits are set based on the results of the sensitivity analysis, stress tests and scenarios, and professional judgement.

Individual Group companies also set operational limits, such as (re)insurance underwriting limits and investment limits, in order to ensure that the activities of the first line of defence are conducted with regard to the risk appetite. In addition, each Group company ensures that it has in place well-defined and established escalation paths and management actions in the case of any breach of operational limits.

For the purpose of periodic monitoring of compliance with the risk strategy, risk measures have been defined that facilitate simplified monitoring of the current capital position of each individual company and the Group, without having to carry out a complete calculation of the solvency capital requirement. A minimum set of risk measures for each risk category has been defined for regular monitoring by individual Group companies.

11.1.3.2 Risk management processes

Risk management processes are inherently connected with and incorporated into the basic processes conducted at the individual company and Group level. All organisational units are involved in risk management processes.

Risk management processes include:

- risk identification,
- risk assessment (measuring),
- risk monitoring,
- determining appropriate risk control measures (risk management), and
- risk reporting.

Risk management processes are incorporated into all three lines of defence. The roles of individual lines of defence are defined in the risk management policy. Risk management processes are integrated also in the decision-making system; all important business and strategic decisions are additionally evaluated in terms of risk.

Risk identification is a process through which an individual Group company identifies the risks to which it is exposed. The key risks compiled in each company's risk register, constituting the company's risk profile, are reviewed on a quarterly basis and amended with consideration for new risks as required. Risk identification at the Group level is conducted in the same way. Risk identification in individual Group companies and at the Group level is both a top-down and a bottom-up process. The top-down risk identification process is conducted by the risk management function, the risk management committee and the management board of an individual Group company. Such identification of new and potential risks is based on monitoring of the legal and business environment, market developments and trends, and expert knowledge; this process is mainly used with strategic risks, such as reputational risk and legal risk. Bottom-up risk identification is conducted by individual organisational units and risk owners (first line of defence). A Group company's risk thus identified is categorised and incorporated into the relevant monitoring, measuring and reporting processes. Risk identification is an ongoing concern, especially as part of the business planning process and all major projects and business initiatives, such as launching of a new product, investment in a new class of assets, acquisitions and other.

The Group has in place regular assessment schemes for all risks to which individual companies or the Group are exposed. Both qualitative and quantitative methods are used to measure risk. In order to quantify risks, the Group is developing support models for the assessment of risks in individual Group companies and within the Group. The Group therefore measures risks:

- by using the Solvency II standard formula,
- by calculating the overall solvency needs within the Own Risk and Solvency Assessment (ORSA),
- by conducting stress tests and scenario analysis,
- by performing qualitative risk assessment in the risk register,
- by using various risk measures that enable simplified measuring and monitoring of the indicative current risk profile.

The management board of each Group company is responsible for risk management and the use of various risk management techniques and actions. In its decisions, the management board takes into account the cost benefit aspect of actions as well as recommendations, if any, issued by the risk management committee or key functions.

Whenever the need arises to adopt a new risk control measure, the relevant company conducts an analysis of the measure in terms of economic and financial viability. Elimination or mitigation of individual risks must be more cost effective than mitigation of the potential impact should the risk materialise, taking into full account the probability of such an event and its financial implications. In practice, it is already in the business planning process that a Group company examines the impact of the business strategy on its capital position, both with regard to the regulator as well as with regard to the own risk and solvency assessment. If during the financial year, decisions are taken that have a significant impact on the risk profile but have not been assessed in terms of risk during the business planning process, the relevant company assesses the impact of such decisions on its risk profile and capital adequacy, and verifies compliance with the risk appetite. If a business decision could have a significant impact also on the Group's risk profile, such impact on the Group's risk profile and capital adequacy is also assessed. Based on the results of the impact analysis, the company takes the necessary actions. Where a business decision is inconsistent with the risk appetite or if a risk tolerance limit is exceeded, the company is required to document such deviation and take relevant actions to resolve the situation.

Risk monitoring is conducted on several levels: at the level of individual organisational units and risk owners, at the risk management department, the risk management committee, the management board, the supervisory board's risk committee and at the supervisory board level of each Group company. In addition, each Group company's risk profile is monitored at the Group level in terms of impact on the Group's risk profile. A standard set of risk measures is defined for risk monitoring, and Group companies follow it on a regular basis. Alongside risks, risk management measures are also subject to monitoring and control.

Large Group companies have already introduced regular risk reporting, which is conducted in the following manner: risk owners report on individual risk categories to the risk management function holders by including a predetermined set of significant risk measures and qualitative information in the report. This serves as the basis on which the risk management function, in cooperation with risk managers, prepares a risk report covering each relevant company's entire risk profile. The report is first discussed by the company's risk management committee, followed by the management and supervisory boards. Finally, it is sent to the Group risk management function holder.

11.1.3.3 Own risk and solvency assessment

In addition to these risk management processes, each EU-based Group company and the Group also conducts own risk and solvency assessment (hereinafter: ORSA) as defined in the own risk and solvency assessment policy. ORSA is a process which includes the identification of the differences between the company's risk profile and the assumptions of the standard formula, the own assessment of solvency needs, capital adequacy projections, stress tests and scenarios, and the link between the risk profile and capital management. In the process, all material risks, whether quantifiable or not, are assessed that may have an impact on the operations of the Group or a Group company from either an economic or a regulatory perspective.

As a rule, the ORSA process is conducted annually; an ad hoc ORSA is performed in the event of a significant change in the risk profile. EU-based Group companies report to the regulator on the ORSA (at least) on an annual basis. Every year, ORSA is increasingly integrated with other processes, in particular with the risk and capital management and business planning. The Group's risk management committee and company management boards are actively involved in the ORSA throughout the process. A number of other employees from different departments also take part in the process, as we wish to obtain as complete and topical a picture of a company's risk profile as possible. The Sava Re Group carries out the ORSA process primarily to understand the own risk profile, the standard formula and to analyse the impact of the changes in the risk profile in the business planning period on capital adequacy. ORSA is an integral part of the decision-making process and contributes to the key decisions and business strategy of a Group company and the Group being adopted with consideration of risks and associated capital requirements. Based on ORSA results we also check the compliance of the business strategy with the risk strategy. This establishes the link between the business strategy, the risks taken in the short, medium and longer term, and the capital requirements arising from those risks and with capital management.

11.2 Capital management

The Group's capital management policy lays down the Group's capital management objectives and related key activities, the classification of eligible own funds, a description of the procedures to ensure an adequate capital structure, the process of preparing a medium-term plan and other important capital management responsibilities.

In this regard, the Group's fundamental pursuit is optimal capital allocation and avoidance of over- and undercapitalisation of individual Group companies and the Group. We want to ensure that each Group company has a sufficient level of surplus over the solvency capital requirement to be able to absorb minor unexpected deviations and deviations related to the structure of the standard formula. We plan to regulate any major unexpected deviations using the surplus of eligible own funds of the controlling company. The composition of own funds held to ensure capital adequacy must comply with the regulatory requirements and the capital management policy of the Sava Re Group and Sava Re. In addition to the regulatory solvency capital requirement, there are other criteria that impact the capital requirements of the Sava Re Group, the most important in the Group being the following three criteria:

- credit rating,
- properties of the standard formula (primarily structure and dependence on current market conditions), and
- resilience of capital adequacy to stress tests and scenarios.

With a view to establishing a framework for capital management, the Sava Re Group, as part of its risk strategy, set down the criteria for the required level of the solvency ratio. Thus, the required solvency ratios are calculated in accordance with the standard formula for each Group company and the Group.

11.3 Material risks of the Sava Re Group

The Sava Re Group and Group members are exposed to the following risks:

- Underwriting risks arising from (re)insurance contracts; these are associated with the risks covered under (re)insurance contracts and with directly related activities.
- Market risk related to volatile prices of financial instruments and market prices of other assets.
- Credit risk arising from non-performance and changes in the credit rating of securities issuers related to the investment portfolio of (re)insurers, and of reinsurers, intermediaries and other business partners who have outstanding liabilities to the (re) insurers.
- Operational risk associated with inadequate or inefficient internal processes, people and computer systems, or from external events.
- Liquidity risks related to loss resulting from insufficient liquid assets when liabilities become due or from increased costs of realisation of less liquid assets.
- Strategic risk associated with achieving the company's strategic plans, and reputational risk, including any implications.

Individual risks are described in detail in the notes to the financial statements of the Sava Re Group (section 18.7) and the notes to the financial statements of Sava Re (section 24.5). SAVA RE GROUP ANNUAL REPORT 2017