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Sustainable Risk Management: Experiences and New Approaches

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Dear ladies and gentlemen

If I am here today to talk about Sustainable Risk Management, then I will try to do this from the perspective of the insurance industry, specifically of a reinsurance company. Many people may think that insurance, and even more so reinsurance, is a closed book - impenetrable, unfathomable. Actually, the concept is quite simple and can look back on a long tradition. In a nutshell, reinsurance means sustaining economic substance. So Swiss Re is really quite familiar with the basic notion of sustainable economic activities. By granting insurance and reinsurance protection and giving the associated advice on the subject of risk, we - and the insurance industry in general - ensure that, despite material losses and setbacks caused by adverse impacts from the natural environment, by technological failure or human error, an individual or a private or publicly-owned organisation can continue to exist and carry on its economic activities. Since Swiss Re was founded in 1863, our basic service has been to assure the economic existence of individuals and businesses in the long term - and in this sense sustainably. An important pre-requisite for being able to do this successfully is expertise in dealing with all types of risk; in the case of Swiss Re, these are *insurance risks, financial market risks* and *credit risks,* but also our own *operational risks.*

The title of my thoughts is very meaningful and invites different interpretations, so some clarifications are needed. First, the term risk management which summarizes the coordinated activities performed to direct and control an organization with regard to risk. Risk itself is the combination of the probability of an event and its consequences. Sustainable in this context is used less in the sense of lasting or upholding, in which it might otherwise be understood. Sustainable describes the aspiration to balance values-added for the economic, social and ecological capital at the same time. What are the rationales for that logical but also rather ambitious and difficult approach?
Loss of value of a company's human and ecological capital will weaken the foundations for that company's short and long-term competitiveness and therefore for the success of its economic activities. A company that embraces sustainable risk management, therefore, aims at propagating economic wealth by preventing the loss of its human and ecological capital. How to do that?

Let us look at the risk management process, which in a nutshell can be broken down into three major components: 1 Risk Assessment, 2 Risk Treatment and 3 Risk Communication. Along the lines of these three components, I would like to elaborate further on strategies and methods with which insurers (and other industries) are already integrating or can further integrate the sustainability principle into their risk management. I will also share some of Swiss Re's experiences with you. In doing so, I will try to look at both, at the management of insurance risks and of operational risks – but due to the limited time I can not further elaborate on the financial market risks and credit risks.

Strategies and methods

1 Risk Assessment

Risk assessment is the overall process of risk identification, risk estimation and risk evaluation. To be in a position to *identify risks* at a very early stage, Swiss Re has developed and implemented over the years a procedure for **s**ystematically **o**bserving **n**otions **a**ssociated with **r**isks - known as SONAR. The providers of these notions are primarily our employees, who can communicate their observations by any media (eg phone, informal talks, electronic SONAR reporting system, e-mails etc) and in any language. In addition, interdisciplinary think-tank sessions are organized aiming to yield in an efficient and interactive way internal and external experts' perceptions on current and expected changes in our and other industries' risk landscapes – covering both insurance and operational risks. External sources, such as media and expert networks, are also systematically tapped. All the information gathered and the results of follow-up activities are documented in a structured way, centrally stored and are accessible for everybody within the company. A team of risk specialists regularly validates this incoming information for accuracy and relevance and determines the in-house experts who are called upon to further assess and evaluate its significance. Any information passing these filters is communicated either a) to our underwriting experts (for product management or product development purposes), if an immediate business relevance has been identified, or b) to issue managers who further investigate by in-depth studies or formal dialogues with external experts. Since the kick-off of SONAR 1_ years ago, over 60 emerging issues have been tabled and followed up internally. In an internally conveyed Delphi study on future risk scenarios, around 100 employees volunteered, the results will be published early next year.

We have developed a variety of tools and training modules for risk estimation and risk evaluation. I would like to take the tools we use to estimate potential property damage in the manufacturing industry as an example to describe briefly how and why sustainability aspects are taken into account:
Up to the mid-80s, risk assessments were limited to evaluating physical protection features such as fire detectors, sprinkler systems, anti-explosion safeguards, etc. More than ten years ago, in response to a proliferation of accidents, we first started to assess and to rate businesses primarily according to their operating procedures and emergency responses, and later, for some years now, according to their risk philosophy and safety management. Nowadays, our risk engineers perform detailed socio-technological system analyses, paying special attention to the company's safety culture and its efforts to reduce the risk of human failure. Since intelligent questionnaires and modern software technology have made it possible for our risk specialists to perform more detailed analyses and to present their results on the spot, their image in the highly exposed manufacturing industries has changed from one of "sprinkler-counting pests" to "welcome safety and damage prevention experts". Precisely because our tours of inspection and business analyses take into account not only plant- and process-specific criteria but also environmental, health and management aspects – which in our experience are directly related to a prophylactic mindset and a safety culture - we are able to give the client a comprehensive picture of the long-term performance capabilities of his business activities (or their weak spots). If he (the client) succeeds in implementing the lessons he has learned, he will be able to increase his value added in the long term by reducing his damage potential and, directly related to this, by more efficient use of his resources.

2 Risk Treatment

Concerning Risk Treatment, the second major component of the risk management process, I will further elaborate on the aspects of risk avoidance, risk reduction and risk transfer.

What is Swiss Re doing in terms of risk avoidance and risk reduction? We engage in an intense dialogue on risk with a view to avoiding and reducing risk situations on the part of our clients, i.e. the primary insurers and their industrial policyholders. This dialogue takes many forms, for instance our topical publications on emerging risks in the economic, technological, social and natural milieus (natural perils, environmental risks). We also conduct risk management workshops with clients, with increasing demand coming from our clients and other stakeholders for comprehensive analyses of their business risks (risk landscaping) and for sustainable risk reduction and transfer solutions. Swiss Re is also represented in various international and national organisations (eg UNEP) and industrial associations (eg World Business Council for Sustainable Development) and takes part in inter-disciplinary research projects (eg Centre for Energy and Environmental Policy Research) that develop and implement "best operation practices", in which, again, integral risk management – our core competence – is a crucial element for the purposes of risk avoidance.

For our in-house risk avoidance, particularly with respect to our operational risks, we have developed groupwide processes and instruments and defined areas of responsibility.

What are we doing to manage these risks in a sustainable and precautionary way? Three years ago, Swiss Re introduced its code of conduct as one element of its corporate governance: the group and divisional compliance officers are responsible for its active enforcement by means of introductory courses for new employees, road shows and continuous monitoring. It is up to all business group managers and all business managers in a line or corporate center function (such as Corporate Integrated Risk Management, Group IT, Internal Audit, Security, Group Sustainability Management) to identify, assess, monitor, control, mitigate, reduce and report operational risks. This means – for example:

- having appropriate written policies and procedures in place for operational tasks performed in their area of responsibility
- having appropriate referral and escalating processes in place
- making sure that employees comply with these policies and procedures (eg development of an internal control program)
- having clear authorities, accountabilities and responsibilities assigned to individuals
- promoting a risk culture which accepts control and supervision
- having operational risk management goals embedded in management objectives (MbO)
- doing the utmost for timely identification and limitation of operational risks

Our activities within the scope of internal environmental management, aimed at continuously reducing our environmental burden, is part of this latter effort. From last year, new facilities and operational premises at Swiss Re are required to be designed to the Minergie standard, with an energy saving of 60% by comparison with new buildings constructed in accordance with the statutory minimum requirements. If you are interested in finding out more about what we have achieved, or failed to achieve, in this respect, feel free to call up our detailed environmental report on our home page.

Risk transfer involves *sharing the benefit of gain or burden of loss for a particular risk with other parties.* Where risks that are difficult to estimate have to be distributed in a suitable manner over various players, tailor-made insurance solutions are needed. In the field of environmental risk, for example, a solution has been developed specially for complex liability claims, the severity and probability of which are difficult to assess. This insurance solution makes it possible to insure manufacturing facilities not only against consequential environmental losses caused by sudden and accidental events but also caused by gradual pollution: this manufacturing facility concept is geared towards granting cover over several years and includes a premium bonus system as an incentive for the operator of the facility to avoid losses. An integral part of this tailor-made risk transfer solution is the ABCD tool. This instrument makes it possible to assess the environmental liability loss potential arising from a specific plant's operating activities. For this purpose, an analysis is made of A) the site, B) the neighborhood, C) relevant emission paths and D) general external conditions such as the legal situation, plant organization, site history, claims experience and various additional qualitative factors, eg socio-cultural and political aspects. Based on the assigned values for probability and consequences of the exposures, a risk-based premium is calculated and specific conditions such as improvement of monitoring and preventive measures are formulated.

3 Risk Communication

The major goal of our risk communication activities is to build up risk awareness and to improve best risk management practices with the aim of continuously reducing risks, and in the best case avoiding them.

Swiss Re has accumulated vast experience in the assessment of complex risks, including environmental risks, from the inherited contaminated sites to climate change. We input our experience into a broad-based dialogue on environmental and risk issues and we advocate an environment and climate compatible economy. For example, already at the international climate conferences in Berlin (in 1995) or in Kyoto (in 1997), Swiss Re called the attention of a broad audience to the hazard potentials associated with climate change and went on to call for a significant reduction of greenhouse gas emissions as one of the preventative actions. Our insurance, financial and climate experts are working in close co-operation with "high-energy-consuming" clients and important stakeholders (such as public authorities, international organisations, NGOs, the media) to develop instruments for trading with greenhouse gas emission rights as defined in the Kyoto protocol and already implemented at the national level in some countries. Our foremost objective is to make a verifiable contribution to reducing global greenhouse gas emissions and thus to help to mitigate the danger of an irreversible climate shift in the medium to long term. This solution-oriented dialogue on climate risks is currently proceeding at full pace. For instance, an international conference on the problem of greenhouse gas emissions is to be held at the *Swiss Re Centre for Global Dialogue, Rüschlikon*, from 11-12 October, followed by various workshops. These will be attended by representatives of the most varied clients and other stakeholders who are actively involved in working out practicable, effective and sustainable solutions for the reduction of these emissions. A similar approach is envisaged for other topical risk issues such as water.

Conclusion
The majority of our clients, ie primary insurers and corporates, are interested in low-cost risk transfer solutions, primarily so as not to have to show outstanding liability payables on their balance sheets and thus to stabilise/enhance their shareholder value. As yet there is still relatively little demand for comprehensive solutions based on detailed risk analyses and advisory services that help to reduce risk and thus to sustain values in the medium to long term. We are, however, noticing that especially companies that operate sustainably and consider sustainability a strategic investment are closely monitoring their rapidly changing risk landscapes in order to be able to respond with dedicated measures to mitigate adverse risk trends. I need hardly stress that we count such companies among our preferred clients and, in turn, give them the opportunity to profit from our know-how – in a shared approach to sustainable risk management.

Thank you for your attention!