

SOLVENCY II AND AVIATION RISKS – AN OVERVIEW

Solvency II is an EU project which will introduce a risk-based and forward-looking solvency regime for all (re)insurers, including captives, in the European Economic Area (EEA). It will change the mechanics of insurance markets profoundly, not only in Europe, but worldwide.

Munich Re is committed to increasing clients' awareness of this important issue and helping them cope with the changes ahead. In this context, the following commentary will briefly explain Solvency II and its potential impact on aviation insurance and industry.

WHAT ARE THE PILLARS OF SOLVENCY II?

Solvency II has three main areas (pillars):

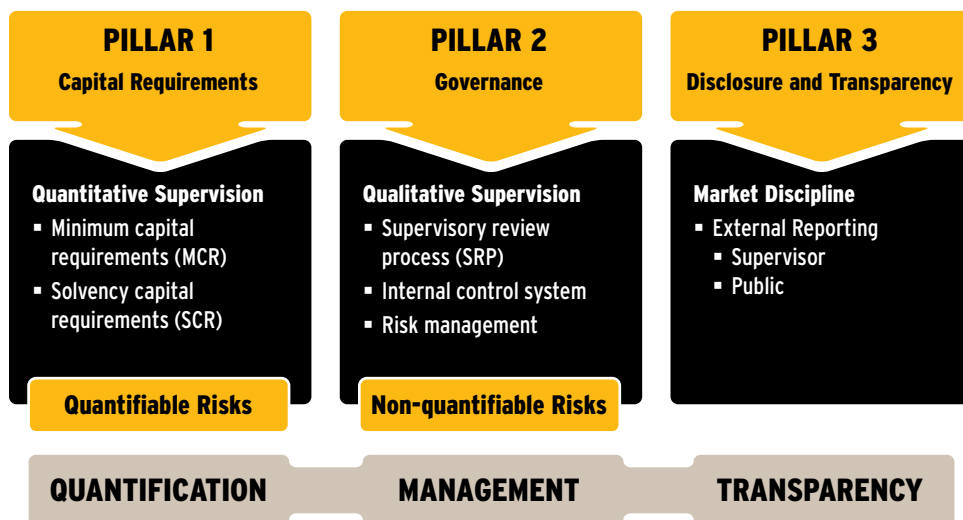


Diagram 1: Overview of the Solvency II structure

Some details are still under discussion, but it is very likely that there will be increased capital requirements for a significant number of (re)insurance companies, especially those that do not have a well diversified portfolio. As Solvency II will force (re)insurers to overhaul their processes and structures in order to ensure an effective enterprise-wide risk management system, it triggers in most cases considerable investments in infrastructure and expertise.

IS SOLVENCY II ONLY RELEVANT FOR EEA-BASED (RE)INSURANCE COMPANIES?

Solvency II not only has a direct impact on companies based in the EEA but will also have world-wide ramifications, as all EEA (re)insurers have to assess the default risk on their counterparties (e.g. international reinsurance partners). In this context, the concept of “equivalence between regulatory regimes” has been introduced.

The article 172 of the Solvency II “Framework Directive” provides the European Commission with the option to evaluate whether a third country regulatory regime – as applicable to reinsurance – is equivalent to Solvency II or not.

If a third country’s regulatory regime is deemed to be equivalent, reinsurance contracts between an EEA cedant and a third-country reinsurance company, e.g. in Bermuda, will be treated in the same way as reinsurance contracts with reinsurers based in the EEA. The deemed non-equivalence of a specific (re)insurance supervision system will probably have significant repercussions for the cedant and reinsurer concerned, for example in the form of increased scrutiny from regulators when a reinsurance agreement is being assessed. This includes the power to require non-EEA reinsurers to provide collateral for any reinsurance of an EEA entity, making the reinsurance transaction more expensive. It is important to understand that the relationship between the companies involved (e.g., intragroup transactions) is of no relevance.

In the first round, the European Commission has proposed to include Switzerland, Japan and Bermuda for assessment of equivalence. The US will be a primary candidate for consideration as a “transitional regime for equivalence”. This means that equivalence is granted only for a limited amount of time. By the end of that transitional period the US would have to fully satisfy all the equivalence criteria in order to be granted the benefits of equivalence permanently.

It is interesting to see the rather different Solvency II equivalence strategies of some of the leading off-shore domiciles. On the one hand the Bermudians are aiming to be considered as Solvency II equivalent, whilst Guernsey has decided to be “non-equivalent” by intention.

The Bermudians communicated two main reasons for their strategy:

- Solvency II equivalence will allow Bermuda companies to conduct business in Europe on a much more efficient basis and
- it will avoid duplication of supervision.

By contrast, the Guernsey financial regulators have raised doubts as to the benefits of mutual recognition status for its captive industry. As Dominic Wheatley, managing director of Willis (Management) Guernsey Ltd. and chairman of the Guernsey International Insurance Association, put it, “the position the island (Guernsey) has adopted will enhance Guernsey’s attractiveness as a domicile to captive owners and other niche insurers looking for a regulatory environment that responds to the smaller scales of business and simpler business models typical of their businesses”.

HOW DO THE “MECHANICS” OF SOLVENCY II WORK?

Solvency II will establish that the capital requirement of a (re)insurance company is based on a total balance sheet approach and an economic valuation of all assets and liabilities.

A total balance sheet approach means that the determination of an insurer’s ability to cover its obligations with the required confidence level should be based upon its total financial position, meaning both the liabilities and the assets sides.

An economic valuation of assets and liabilities implies that assets should be valued at market value where this is both available and provides a reliable and appropriate valuation. In cases where a market-value is not available, a mark-to-model value will be used.

Liabilities on the other hand should be valued on a “best-estimate basis” (economic value of liabilities). A risk margin for non-hedgeable financial and non-financial risks is added to the best estimate of liabilities. This risk margin should be calculated using the cost-of-capital method.

When it comes to the actual capital requirement calculation, (re)insurers can either choose to use the Solvency II “standard formula”, which is a more uniform and generic risk-modelling approach, or they can opt for an “internal model”, which should represent the individual risk profile of a (re)insurer more precisely.

However, the basic underlying mechanics, which are explained briefly below, are quite similar. With the standard formula the “Solvency Capital Requirement” (SCR) is derived as an aggregation of the risk capital figures for individual risk sub-modules, e.g. underwriting risk (broken down into life, property-casualty and health), market, counterparty default and operational risk (see diagram below).

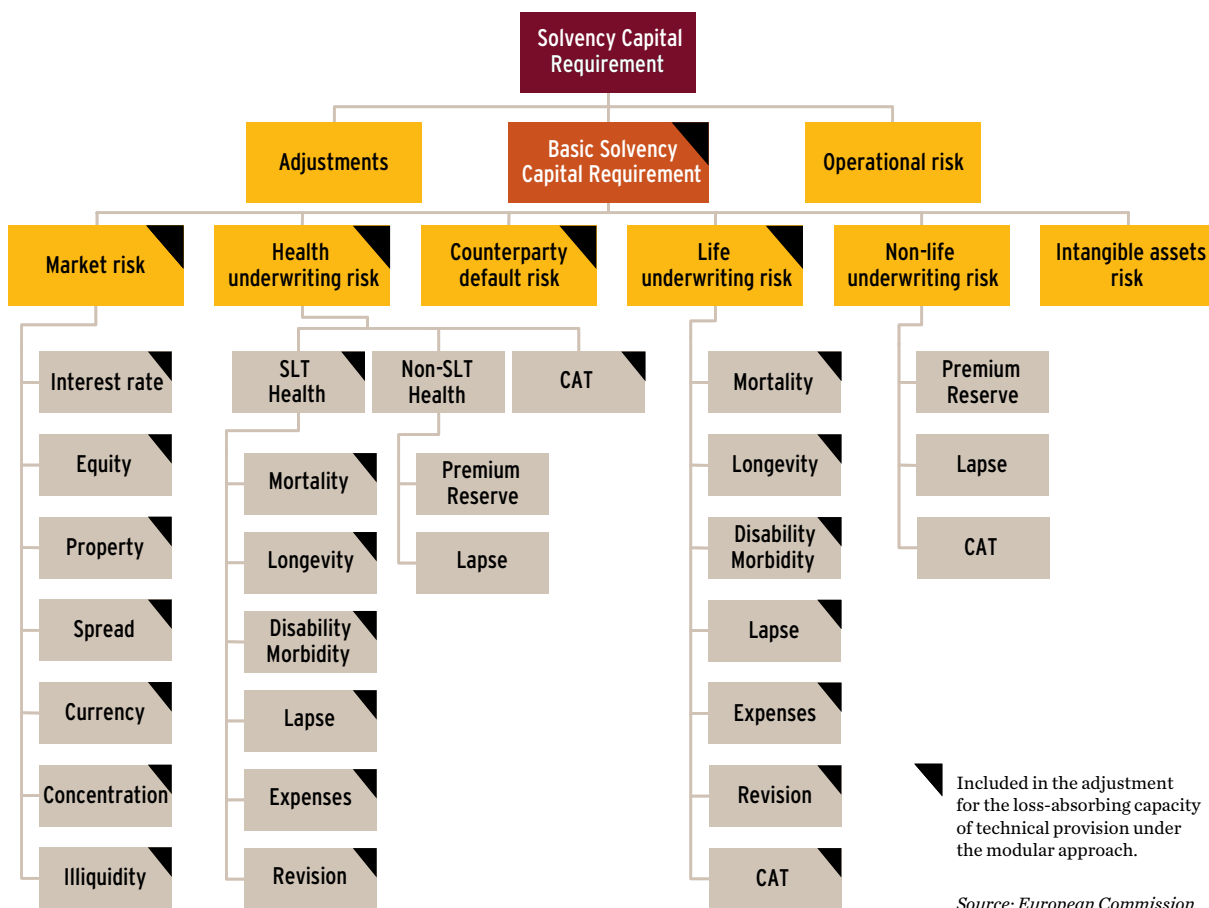


Diagram 2: Structure of the standard formula

According to the Solvency II Directive, insurers’ risk situations are to be evaluated on a value-at-risk basis with a confidence level of 99.5% over a twelve-month period and the amount of risk capital required is calculated accordingly.

HOW ARE AVIATION RISKS HANDLED IN THE SOLVENCY II CONTEXT?

In the Solvency II standard formula the capital requirement for the underwriting risk of specific lines of business (LoB) is made up of a premium and a reserve risk component. There is provision for twelve lines of business and primary insurance and proportional reinsurance are treated in the same way. For each individual LoB, the standard deviations and volume measures for both premium risk and reserve risk are determined. As a general principle, the higher the volume and the underlying risk, the higher the capital requirement will be.

Aviation will fall under “Marine Aviation Transport” (MAT). Out of the 12 LoBs recognised by Solvency II, MAT has the second highest standard deviations for premium and reserve risk (net of reinsurance) among the primary/proportional RI lines of business. Due to these high deviations, writing MAT consumes a comparatively large amount of risk capital.

In the context of the standard formula, both proportional and non-proportional (re)insurance covers have a risk-mitigating, and hence a capital-reducing effect. However, proportional covers reduce only the volume measure and non-proportional ones reduce both the volume and the risk measure.

WHAT IS THE POTENTIAL IMPACT OF SOLVENCY II ON THE AVIATION INSURANCE MARKET?

It can be expected that Solvency II's final introduction and even the process of adapting to it will force EEA-based aviation insurance market players to act even more rationally and economically efficiently.

Especially aviation manufacturers and airlines that own a captive in the EEA will increase their understanding of their risk profile as they are required to implement the Solvency II regulations more or less in the same way as genuine (re)insurers. The most advanced aviation manufacturers in the EU might see Solvency II as an opportunity rather than a threat. They are expected to transform their captives from "transactional vehicles" into strategic risk management assets, which help them to build an effective risk data base, increase the understanding of the mechanics of risk financing and therefore lower their total cost of risk. Some players might even consider a protected cell structure or move their captive to an off-shore domicile in order to minimise the operational challenges posed by Solvency II's Pillar 2.

The impact on market capacity and prices is hard to assess, but the increased transparency regarding the total cost of risk is likely to lead to pricing and reserving being more commensurate with risk.

CONCLUSION

Solvency II will have a major impact on the (re)insurance markets, not just in the EEA, but worldwide. It will lead to more sophisticated business models and efficient markets, and is therefore a must-know for all (re)insurance market participants.

Munich Re is well positioned for Solvency II. We possess a highly diversified portfolio and a broad range of relevant expertise, which we intend to share with our clients. Our broad range of services spans from providing basic knowledge to supplying specialist actuarial and risk management expertise built up by Munich Re over many years. If you have any further questions, please contact us.



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