Introduction to Solvency II

Marie Michaelides

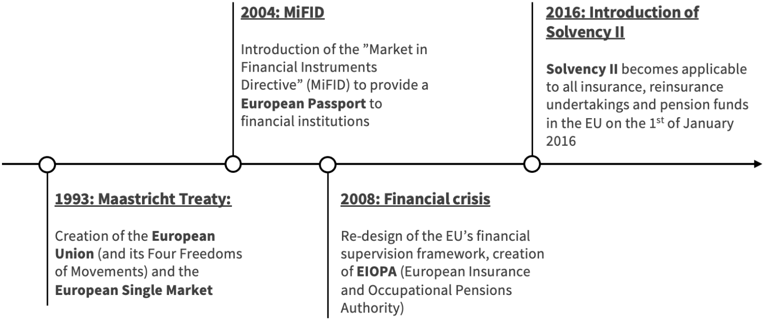
July 2021

Contents

Contents

Context and introduction of Solvency II in the European insurance market

A bit of History: the need for a new regulatory framework for the European insurance sector



Context and introduction of Solvency II in the European insurance market

In response to the financial crisis of 2008 and the development of the European Single Market, EIOPA introduced Solvency II as the new supervisory reporting framework for all insurance and reinsurance undertakings as well as pension funds operating in the EU Member States.

Solvency II pursues 2 main objectives:

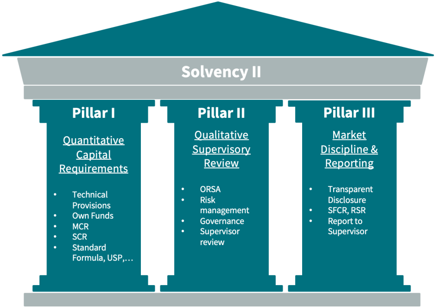
- The harmonization of the regulations applicable to the European insurance sector
- The enhancement of customer protection via the settlement of capital requirements defined on the basis of an in-depth analysis that must be performed at least on an annual basis

Contents

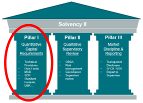
Solvency II: a 3-pillars structure

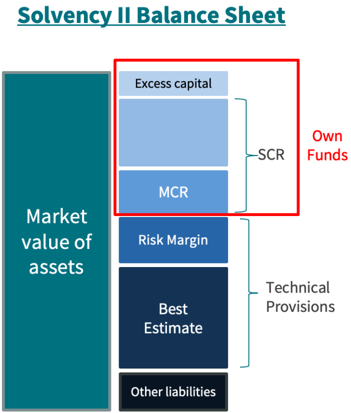
Solvency II is based on a 3-pillars structure. Each pillar plays a specific role in the harmonization of the regulations and the enhancement of customers protection at the EU level.

- **Pillar I** allows the companies to define and analyze their risk profile from a quantitative point of view.
- **Pillar II** provides guidance to companies to perform a qualitative analysis of their risk profiles.
- **Pillar III** enables the supervisors, the regulators and the general public to maintain a view on the financial stability and performance of the undertakings.



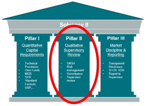
Pillar I: quantitative requirements





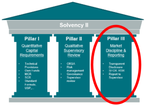
- Pillar I sets the guidelines to achieve a sufficient level of solvency capital requirements.
- The valuation of assets and liabilities was redefined; according to the Solvency Directive (2009), both sides of the balance sheet should be valued '*at the amount for which they could be exchanged between knowledgeable willing parties*'.
  - This implies using the **market value** for the assets (in opposition to the book value).
  - The liabilities are calculated as the sum of the **Best Estimate of the Technical Provisions and a Risk Margin**.
- Next to the assets and technical provisions, 2 other crucial components of the Solvency II balance sheet are the **Own Funds** and the key of the Solvency II framework: the **Solvency Capital Requirements**.

Pillar II: qualitative requirements



- While Pillar I sets the guidelines for achieving the capital requirements, Pillar II provides guidance on the way an undertaking should be organized and contains information on the governance, internal control systems, risk management system, etc. that undertakings must have in place.
- Undertakings are required to monitor their own risk profile and solvency position, in particular through the Own Risk and Solvency Assessment (ORSA) report. This report aims at:
  - Forcing undertakings to consider risks beyond the scope of Pillar I and assess the impact of other, not quantified risks both with short and long-term impacts on their solvency position.
  - Forcing undertakings to closely monitor and review their overall governance on a constant basis.
- Pillar II also includes the supervisory review in which the regulator/supervisor can assess the solvency results of the undertakings and impose measures or intervene if necessary.

Pillar III: disclosure requirements



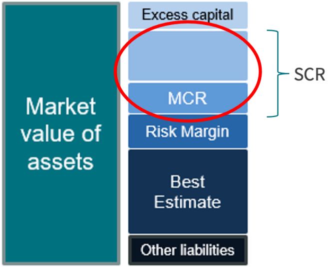
- The third Pillar of Solvency II forces the companies to maintain an adequate level of transparency towards **both** the regulator and the general public.
- All undertakings are required to provide on a regular basis a certain number of reports and figures:
  - The Solvency and Financial Condition Report (SFCR): publicly disclosed on an annual basis, contains informations on the activities of the company, its governance system, risk profile, overall financial health as well as information on any significant change that occurred during the year.
  - The Regular Supervisory Report (RSR): disclosed to the regulator every 3 years, contains information on the long-term situation and strategic plan of the company and a more detailed evaluation of the results and their evolutions than in the SFCR.
  - The Quantitative Reporting Templates (QRT): disclosed to the public and/or regulator on a trimestrial, bi-annual or annual basis, contains the quantitative figures of Solvency II.

Contents

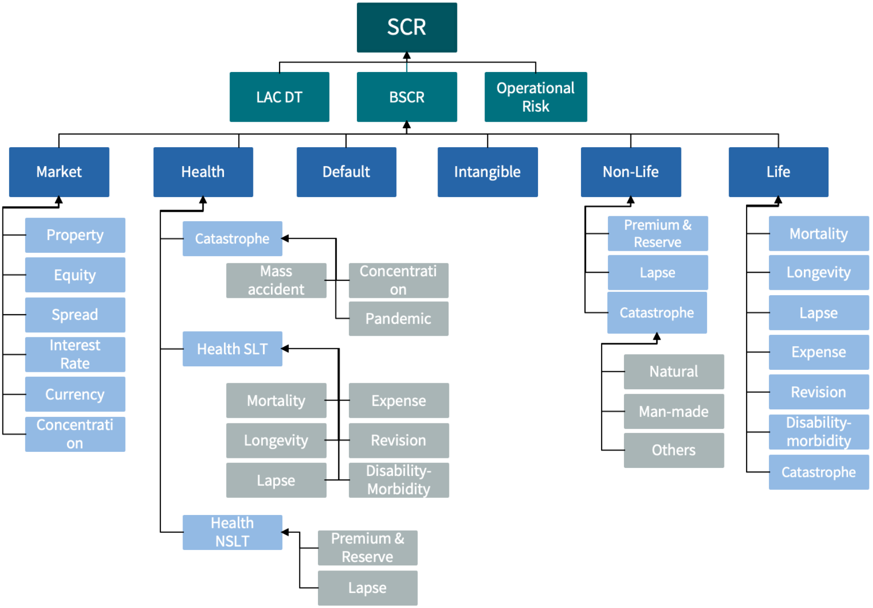
Solvency Capital Requirements (SCR)

The Solvency Capital Requirements (SCR) represent the amount of capital that a company should hold such that it can meet its obligations towards its policyholders and beneficiaries with a probability of 99,5% over the following 12 months ($VaR_{99,5}$). This corresponds to the chance of the company going bankrupt less than once in every 200 years.

- The SCR encompasses existing and new business over the following 12 months (through UW risk modules).
- The first step in the derivation of the SCR is the calculation of the Basic Solvency Capital Requirements (BSCR) using the different sub-modules that correspond to the quantifiable risks that the SCR aims to englobe. This can be done either using the Standard Formula prescribed by EIOPA (with or without USP) or an (full or partial) internal model.
- An adjustment for deferred taxes (LAC DT) and for operational risk are then added to the BSCR to obtain the SCR.



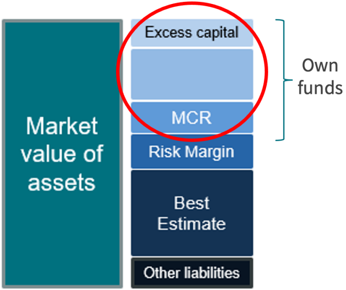
Solvency Capital Requirements (SCR) - Full breakdown



Own Funds

The Own Funds include the assets in excess of the technical provisions.

- They are classified into Tiers depending on the quality of the capital based on the capacity to absorb losses and the perceived stability in the long-term.
  - Tier 1 capital represents the highest quality level and must represent at least 50% of the SCR and 80% of the MCR.
  - Tier 3 capital is the lowest quality level and should represent at most 15% of the SCR. The MCR can not be backed by Tier 3 capital.



- In addition to the tiering, the Own Funds can also be classified in two types depending on their availability for the company

Minimum Capital Requirements (MCR)

The Minimum Capital Requirements (MCR) represent the amount of capital that a company should hold such that it can meet its obligations towards its policyholders and beneficiaries with a probability of 85% over the following 12 months (VaR_{85}).

- If MCR $<$ Own Funds $<$ SCR: the regulator has the right to impose some measures to follow for the company.
- If MCR $>$ Own Funds: the regulator is required to intervene and manage the company itself to bring it back to an adequate level of capital. The company can also lose its authorization to pursue new business.

Solvency Ratio

- The Solvency Ratio is the ratio of the Own Funds and the SCR: $\frac{\text{Own Funds}}{\text{SCR}}$. It compares the assets of the company to the capital needed to cover the different risks they are exposed to.
- The Solvency II Ratio is a simple measure to control the risk appetite of a company (i.e. the risks that the company is exposed to and its readiness to tolerate them). The lower the ratio, the more companies should reconsider their risk appetite that might be too large compared to their resources.

	Country	2020	2019
Allianz	DE	240%	212%
AXA	FR	200%	198%
Legal & General	UK	175%	179%
Assicurazioni Generali	IT	224%	224%
Aviva	FR	178%	183%

Solvency ratios of the top 5 European insurers

Contents

Solvency II vs the Canadian regulatory framework

	Solvency II	Canadian framework
Objectives	- Policyholder protection - Harmonisation of rules across the EU	Policyholder protection
Supervisors/Regulators	- EIOPA - National regulators	- BSIF (Federal) - AMF (Québec)
Valuation method	Market value	Market value
Capital requirements	SCR, single framework for all	- LICAT (Life) - MCT (Non-life; 99% ES or CTE)
Use of internal models	Allowed	More limited
Qualitative aspects	- ORSA - Risk Management structure - Supervisory Review	- ORSA - Supervisory Review
Disclosure	- SFCR - RSR - QRT	- Public disclosure of LICAT results - Annual audit report of the MCT

BSIF = Bureau du surintendant des institutions financières (OSFI)
AMF = Autorité des marchés financiers
LICAT = Life Insurance Capital Adequacy Test
MCT = Minimum Capital Test

A future for Solvency II?

- Solvency II has been criticized on multiple points, in particular:
  - Time-horizon of one year does not allow for a proper long-term view of the solvency situation
  - The standard formula for the SCR is too simplistic and often inadequate but implementing an internal model is very costly
- In 2020, EIOPA performed a Solvency II review to make some adjustments to the directive
- Towards a global regulatory framework similar to IFRS?

References

- Solvency II Directive:
  https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0138&from=en
- Solvency II Delegated Act:
  https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32015R0035&from=EN
- LICAT:
  https://www.willistowerswatson.com/en-AE/Insights/2018/09/what-is-the-life-insurance-capital-adequacy-test-and-how-will-it-affect-canac
- MCT:
  https://www.osfi-bsif.gc.ca/Eng/fi-if/rg-ro/gdn-ort/gl-ld/Pages/mct2018.aspx