

Solvency 2 Impact on European Bond Markets

Part 1: How does Solvency 2 work?

European Central Bank
Bond Market Contact Group

Andreas Gruber
Frankfurt, 21 June 2016

Solvency 2 is a new regulatory regime for insurance companies

Solvency II is an EU legislative program introducing a new, **harmonized EU-wide insurance regulatory regime**. It introduces a **risk-based economic approach** for insurance regulation and supervision and consists of three pillars:

- Risk quantification
- Risk management and governance
- Risk disclosure.

Risk quantification measures the available financial resources to cover potential losses in a crisis.

- **Available Financial Resources** (AFR, own funds):
 - Excess of assets over liabilities
 - Subordinated liabilities
 - Other reserves
- **Solvency Capital Required** (SCR) measures the potential losses in a crisis to be covered:
 - Insurance risk
 - Capital market risk
 - Operational risks

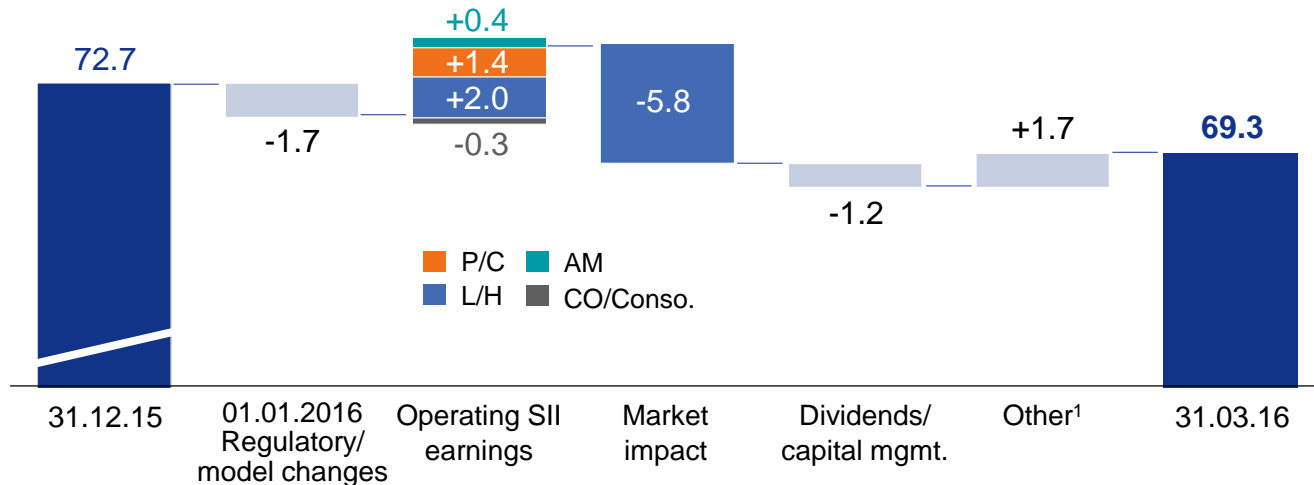
Insurance companies either can use the **Standard Model** or their own **Internal Model**:

- In Germany, 37% of insurance groups applied to get an internal model approved. So far only 5 were approved: Allianz, ARAG, Hannover Re, Munich Re, Talanx.¹
- The standard model is a factor based model. E.g. EEA/OECD traded equities need 39% risk capital; other equities 49%.
- Own models are more detailed. E.g. internal models use dynamic diversification factors to calculate possible losses on assets. They depend on capital market developments as well as the given allocation of assets and liabilities. The standard model has fix diversification factors.
- Own models not necessarily benefit from lower risk capital needs!

1) Source: Ernst & Young. On a European level, 19% of insurances are trying to get approval for an Internal Model, and 30% for a Partial Internal Model. E.g. Axa and Generali use their own model.

Solvency II capitalization: Allianz figures to explain the mechanism

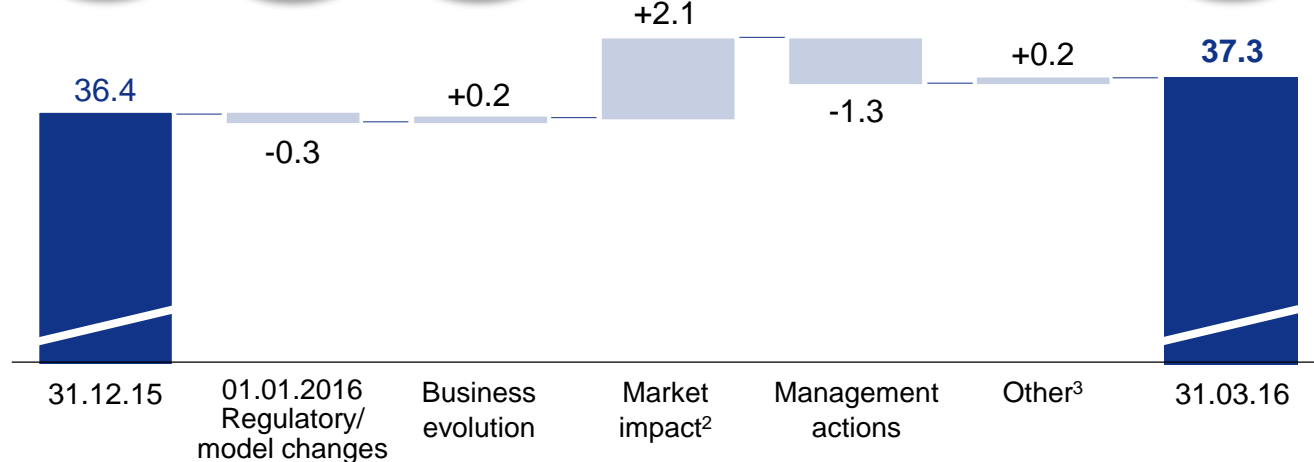
AFR (EUR bn)
Available financial resources (also called Own Funds).



SII capitalization



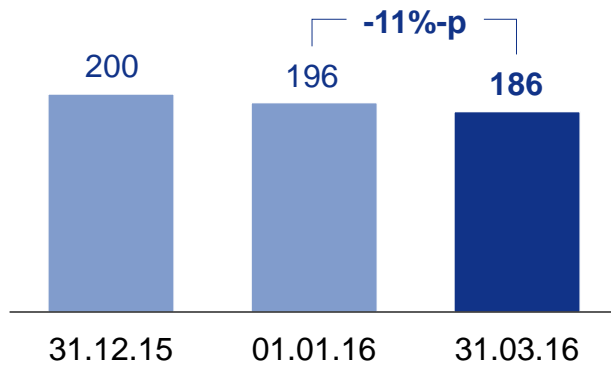
SCR (EUR bn)
Solvency Capital Required to ensure 99.5% probability that insurer can meet its obligations.



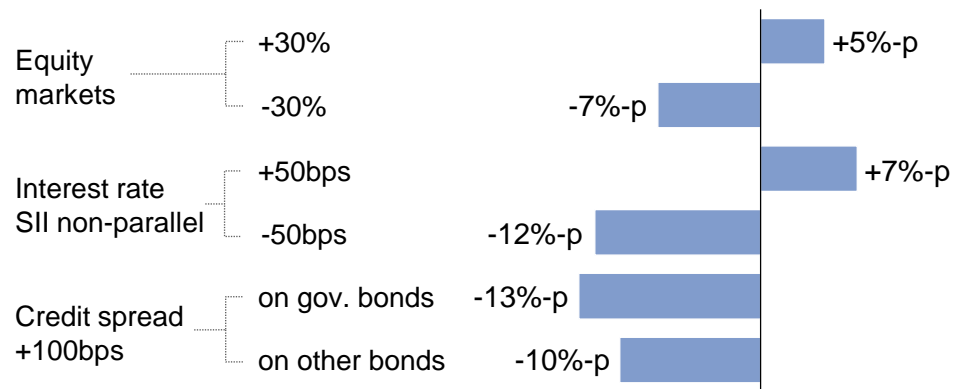
1) Other effects on own funds include changes in taxes, limitations and changes of surplus funds and going-concern reserve. 2) Including cross effects and change in policyholder participation. 3) Other effects on SCR include diversification effects and third country equivalence. 4) Pre-tax operating capital generation.

SII capitalization is highly sensitive to capital market movements

Allianz SII capitalization¹
(in %)



Key sensitivities²



1) Changed regulatory tax treatment of German life sector reduces year-end SII ratio from 200% to 196% on January 1, 2016.

2) Second order effects to other risk types and to own funds transferability restrictions are not considered.

Market impact depending on portfolio composition, but also on individual Solvency II model

Insurer	Solvency II Capitalization 2015 Q4 ¹	Ex-post estimated solvency impact of market movements ²		Solvency II Capitalization 2016 Q1 ¹
		10y German bund yield -41bps	Euro Stoxx 600 and Euro Stoxx 50 -9%	
Aegon	160%	-1.6	-1.8	155%
Allianz	200%	-11.5	-2.7	186%
AXA	205%	-6.6	-2.2	200%
Delta Lloyd	131%	0.0	-7.2	127%
Generali	202%	-6.6	-5.0	188%
SCOR	211%	-6.2	-0.9	202%

Sources:

1) Solvency figures as in each companies Q1 results presentations.

- Aegon: Decrease in Solvency II ratio as a result of the share buyback, 2015 final dividend and negative capital generation driven by adverse market movements.
- AXA: impact of adverse financial market conditions was partially offset by the operating return contribution and the issuance of Euro 1.5 billion of dated subordinated notes.
- Allianz: Changed regulatory tax treatment of German life sector reduces year-end SII ratio from 200% to 196% on January 1, 2016. Rising capital requirements from lower discount rates partially compensated by management actions.
- Generali: Negative impact due to the decrease in interest rates, losses on equity values and increase in market volatilities is partially offset by the organic capital generation.
- SCOR: Reduction due to financial markets volatility, mainly driven by decrease in interest rates across main currencies. The year-end 2015 adjusted solvency ratio of 211% and the Q1 2016 estimated solvency ratio of 202% have been adjusted and allow for the intended calls of the two debts callable in Q3 2016 (the 6.154% undated deeply subordinated EUR 257 million notes callable in July 2016 and the 5.375% fixed to floating rate undated subordinated CHF 650 million notes callable in August 2016), subject to the evolution of market conditions and supervisory approval. The solvency ratio based on Solvency II requirements is 231% at year-end of 2015 and 222% at 31 March 2016.

2) Morgan Stanley, Insurance – Fat Tail Friday, 20 May 2016.

Disclaimer

These assessments are, as always, subject to the disclaimer provided below.

Forward-looking statements

The statements contained herein may include prospects, statements of future expectations and other forward-looking statements that are based on management's current views and assumptions and involve known and unknown risks and uncertainties. Actual results, performance or events may differ materially from those expressed or implied in such forward-looking statements.

Such deviations may arise due to, without limitation, (i) changes of the general economic conditions and competitive situation, particularly in the Allianz Group's core business and core markets, (ii) performance of financial markets (particularly market volatility, liquidity and credit events) (iii) frequency and severity of insured loss events, including from natural catastrophes, and the development of loss expenses, (iv) mortality and morbidity levels and trends, (v) persistency levels, (vi) particularly in the banking business, the

extent of credit defaults, (vii) interest rate levels, (viii) currency exchange rates including the Euro/U.S. Dollar exchange rate, (ix) changes in laws and regulations, including tax regulations, (x) the impact of acquisitions, including related integration issues, and reorganization measures, and (xi) general competitive factors, in each case on a local, regional, national and/or global basis. Many of these factors may be more likely to occur, or more pronounced, as a result of terrorist activities and their consequences.

No duty to update

The company assumes no obligation to update any information or forward-looking statement contained herein, save for any information required to be disclosed by law.