

Swiss Re



The implementation of Solvency II

Challenges and the impact of reinsurance solutions

Portoroz, 10th June 2011; Christian Kreutzer





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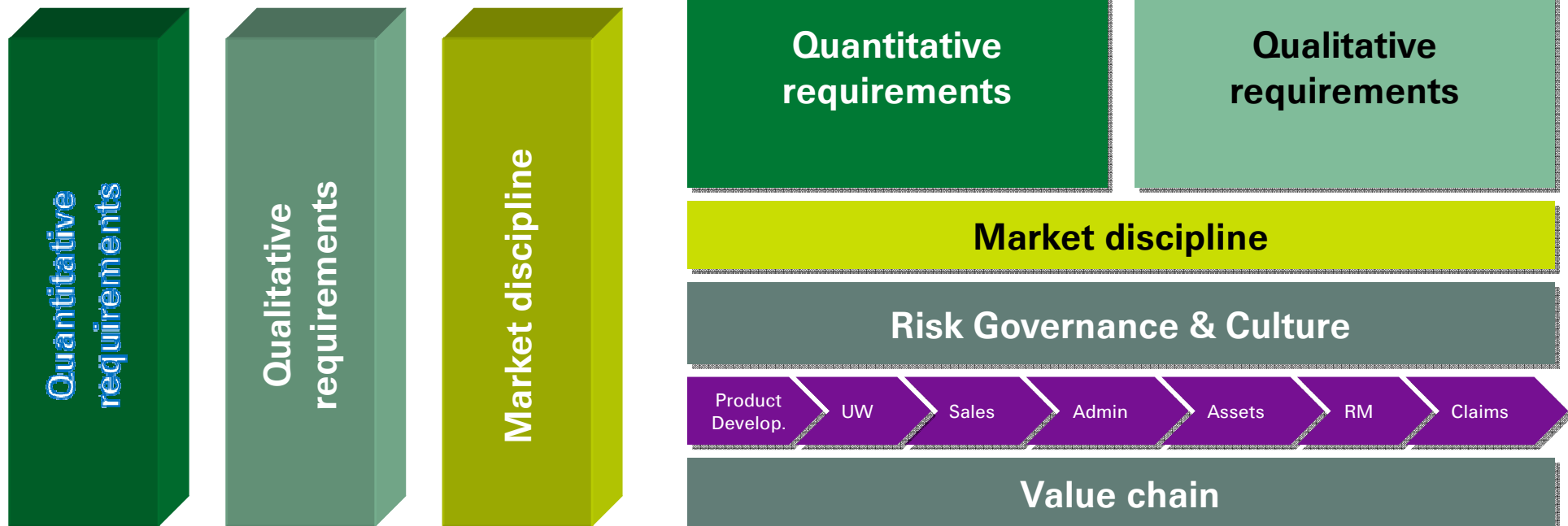
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Introduction and QIS 5 Overview

Solvency II - Implementation

The requirements of the three pillars of Solvency II have to be embedded in an overall Risk Management Framework including all steps of the value chain of an insurance company



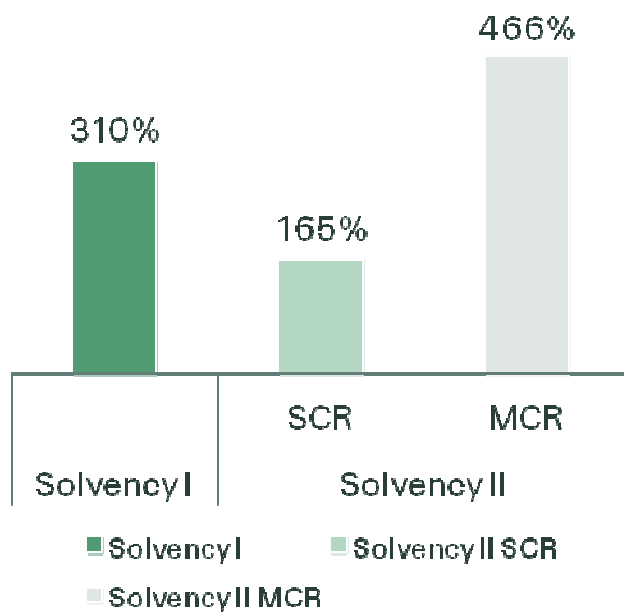


Market review

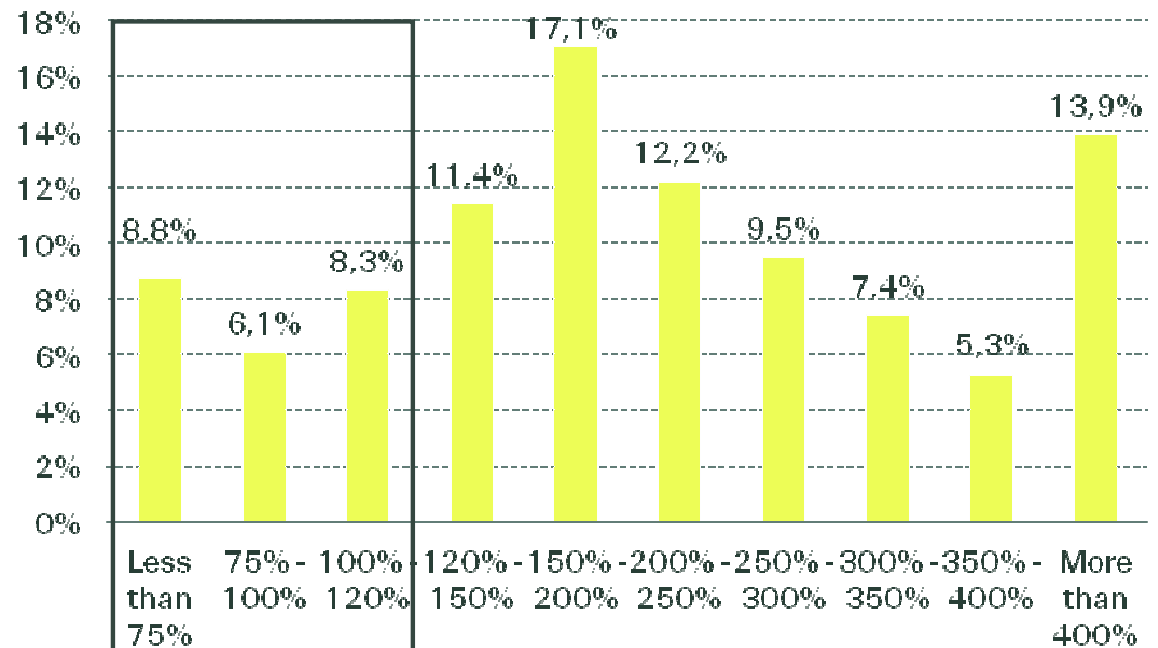
QIS 5 results distribution

- SCR for total non-life and life industry at 165%.
- Large dispersion of solvency ratios.
 - 15% of all participating entities are not meeting 100% solvency ratio.
 - 8% have a ratio of between 100% and 120%.

S I, QIS 5, SCR & MCR



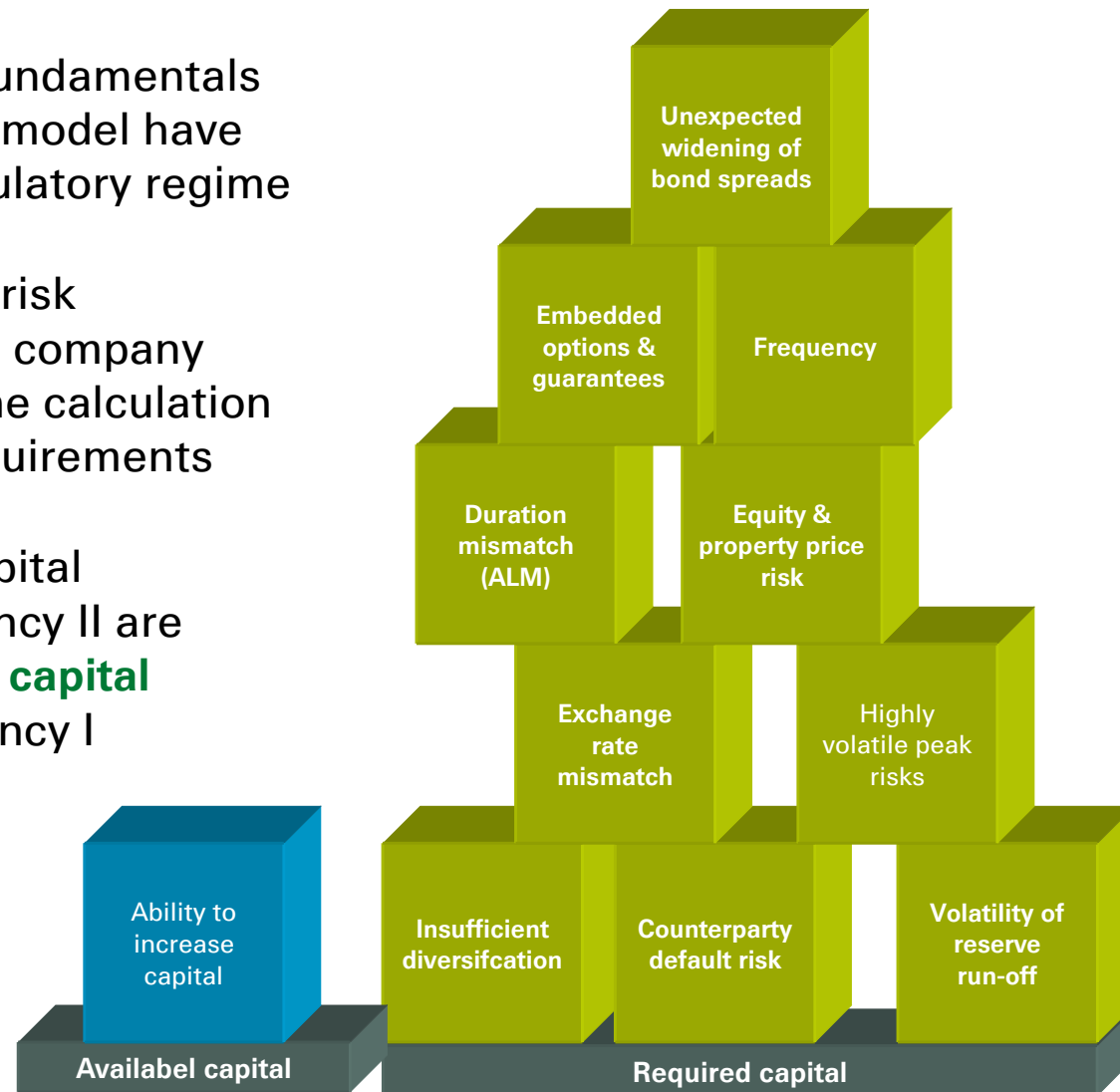
Distribution of SCR coverage





Capital drivers under Solvency II Specific Topics

- Under **Solvency I** a lot of fundamentals of the insurance business model have been neglected in the regulatory regime
- Under **Solvency II** the real risk landscape of an insurance company should be considered in the calculation of the solvency capital requirements
- Therefore the solvency capital requirements under Solvency II are influenced by a number of **capital drivers** compared to Solvency I

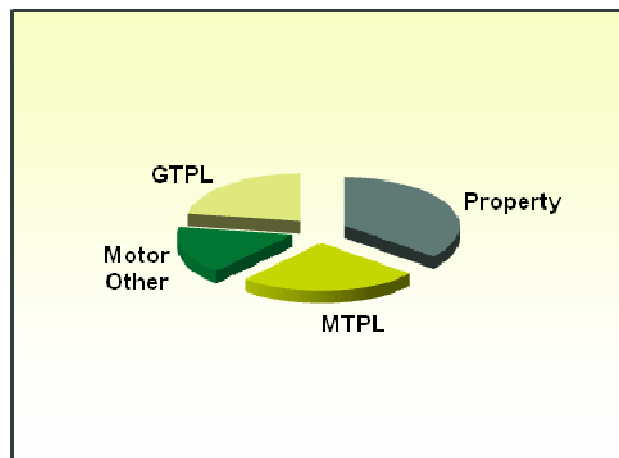




Example:
Insufficient diversification
and quota share

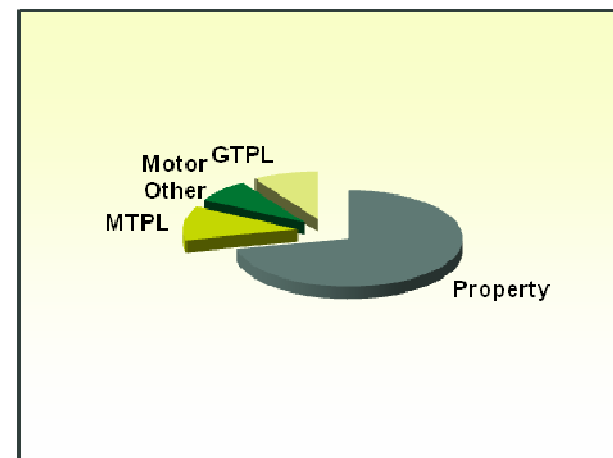
Reaping the diversification benefits of Solvency II

Impact of an additional Property cession of EUR 100 on SCR



-68,9

Impact of an additional Property cession of EUR 100 on SCR



-95,5

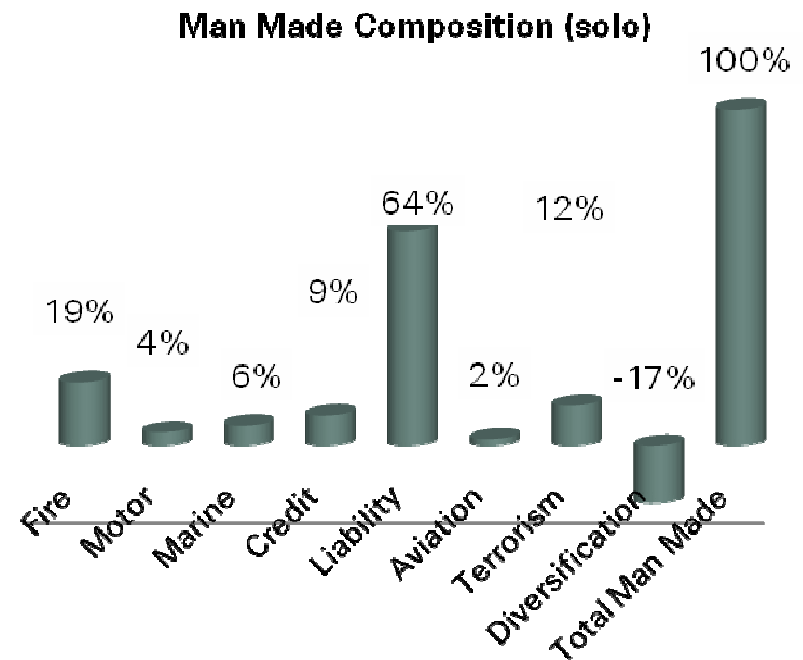
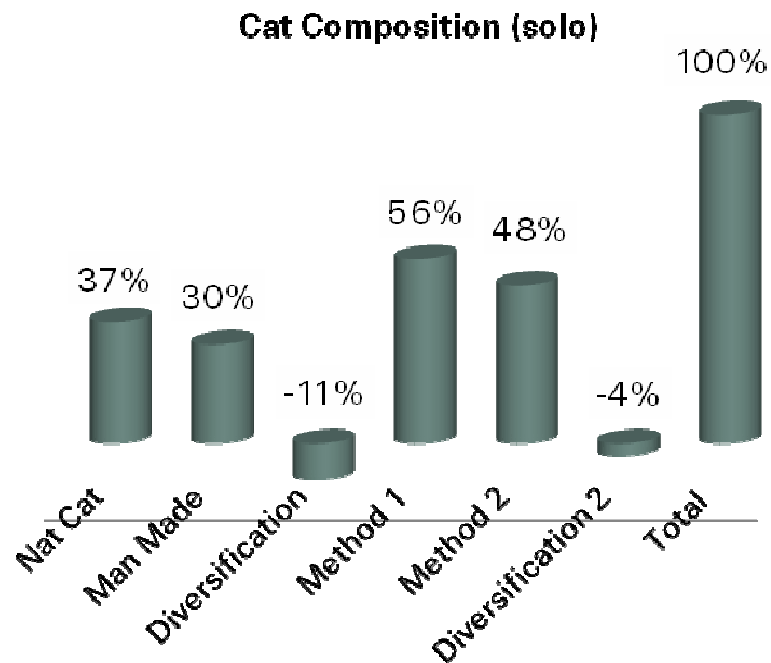
The less diversified a portfolio is, the more significant the impact of a reinsurance cession (traditional Q/S) will be on the SCR.



Example:
Highly volatile peak risk
and Excess of Loss covers

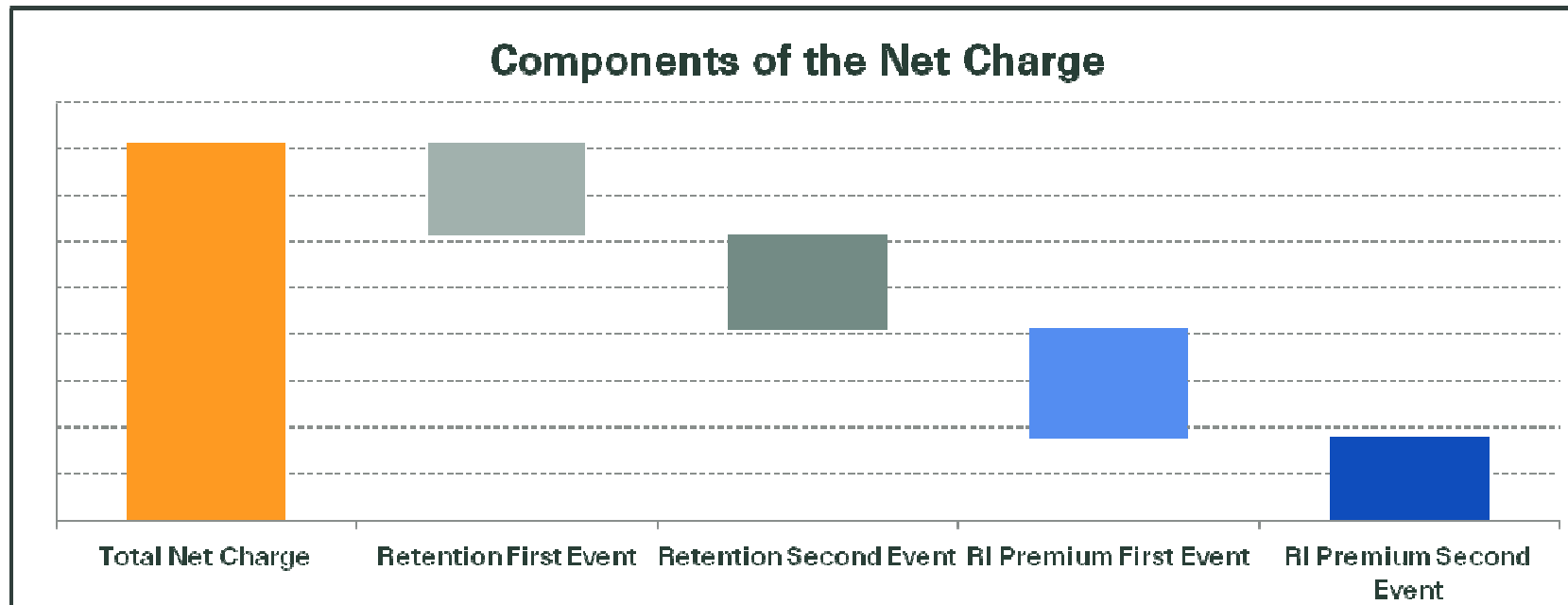


QIS 5 results Catastrophe Risk



Apart from Nat Cat exposures Man Made scenarios and in this matter specifically Liability contribute to the Cat Charges

QIS 5 Nat Cat Calculation of Net Charges



- In contrast to the Gross charge, the net charge is calculated as a set of 2 events that are proportional to the gross event.
- Reinsurance is applied separately to the respective events.
- The net charge consists of two retentions, the respective reinstatement premiums and any overspill.



QIS 5 Man-Made Cat

Exemplary standardised scenarios

Line of Business /Peril	Scenario Description
MTPL	<ul style="list-style-type: none"> •Selby-like, Mont Blanc tunnel like, Extreme crash (coach accident) •European market loss 275m Eur with a 20yrs return period •Input parameters are number of vehicle years and maximum limit, unlimited possible as input parameter
Fire	<ul style="list-style-type: none"> •Sum insured of largest known concentration of exposures under the fire and other damage lines of business in a 150m radius (i.e. in the vicinity of industrial facilities with impact on residential or other industrial premises) •Damage Ratio caused by the scenario (=100%)
Terrorism	<ul style="list-style-type: none"> •Sum insured of the largest known concentration of exposures under the Fire and other damage lines of business in a 300m radius (i.e. densely populated office blocks in financial hubs) •Damage Ratio caused by the scenario (=50%)
Liability	<ul style="list-style-type: none"> •The liability scenarios need to cover the following sub-lines: GTPL; PL; PI; D&O; Employers' Liability; Pollution liability; Employers Practice Liability •Vektor-matrix based on premium volumes per sub-line and risk factors (E&O 125%, D&O 200%, GTPL 225%, EL 200%) + Diversification Benefit



Example: Frequency Protection with Floating Retention



Frequency Protection with Floating Retention

- Strong focus on financial performance indicators could motivate additional protection.
- Besides the insurance risk, financial market risk is protected in a combined solution.
- A Stop Loss cover is combined with a Floating retention which is connected to financial indices.



- The pure Stop Loss structure provides protection against adverse frequencies on the insurance side.
- The floating rate of the cover mitigates the effects of adverse developments on the investment side.



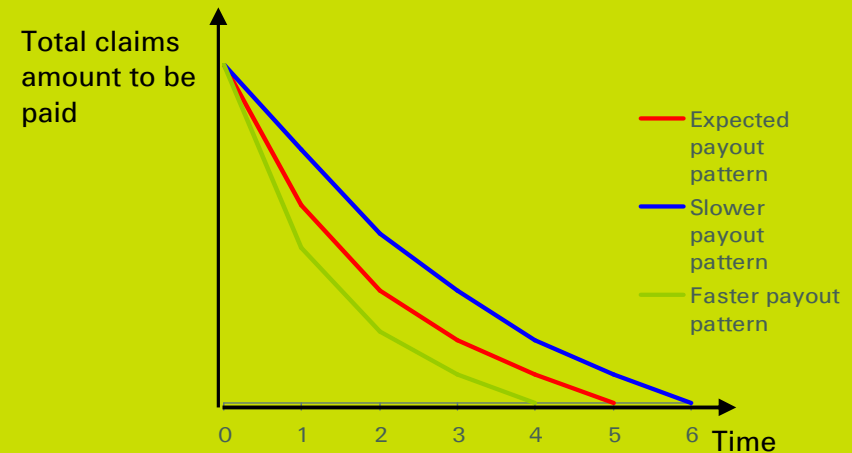
Example: Volatility of reserve run-off and LPT & ADC



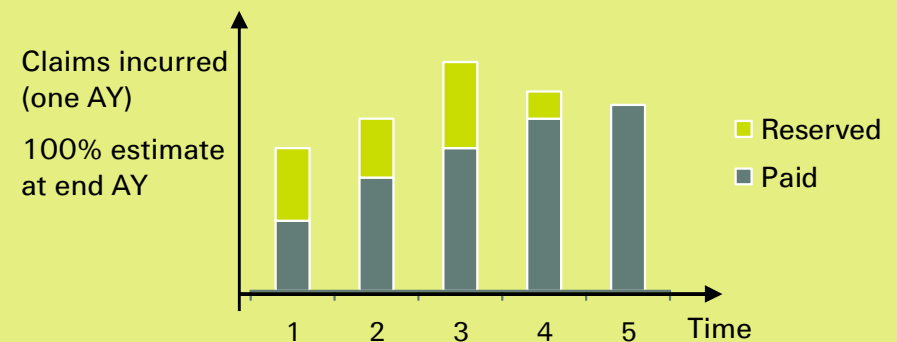
Capital driver – Volatility of reserve run-off

- While the final payments to a policyholder or a beneficiary will not yet be precisely known, the run-off contributes to the absolute volatility of an insurer's result
- This implies that the client will need, from an economic perspective, risk capital in order to support the run-off of a portfolio of liabilities
- The inclusion of the volatility of reserve run-off may decrease or (more likely) increase the capital requirement

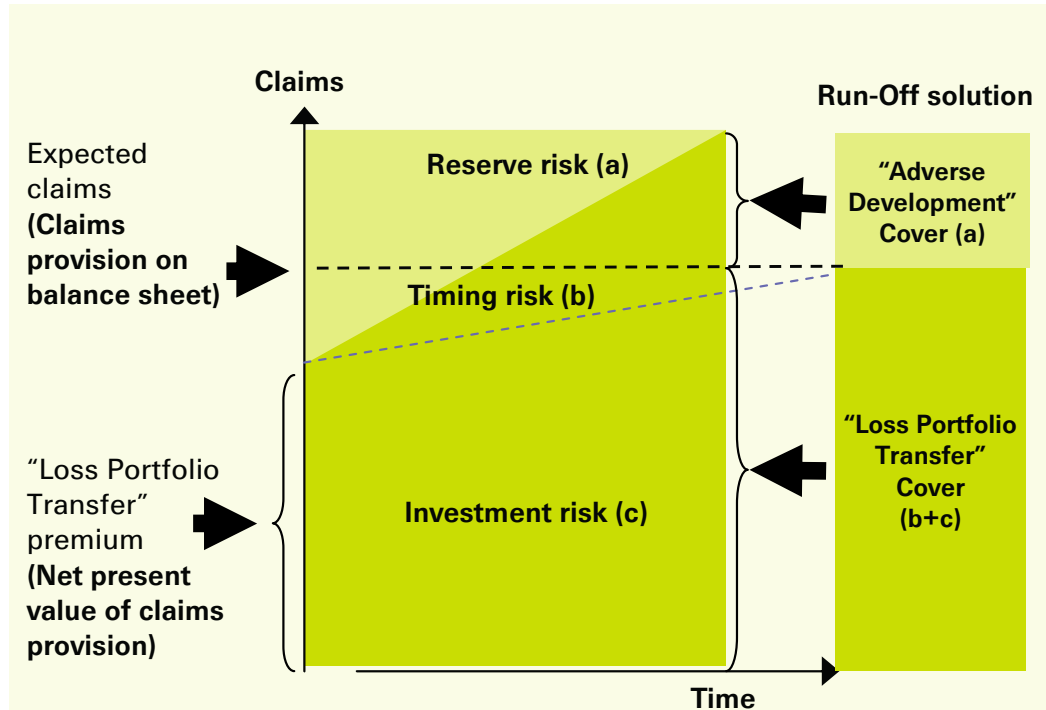
1. Timing risk



2. Reserving Risk



Loss Portfolio Transfer (LPT) & Adverse Development Cover (ADC) under Solvency II



Remarks:

- Normally the capital relief from transferring the LPT part will be lower than the relief achieved by reinsuring adverse claims (ADC)
- So far in some European countries the LPT is not recognized as reinsurance

Value proposition of a LPT/ADC under Solvency II:

Insurance risk:

- LPT removes the timing risk
 - ADC removes the reserving risk
- => both consequently remove the necessity to set aside regulatory capital

Market risk:

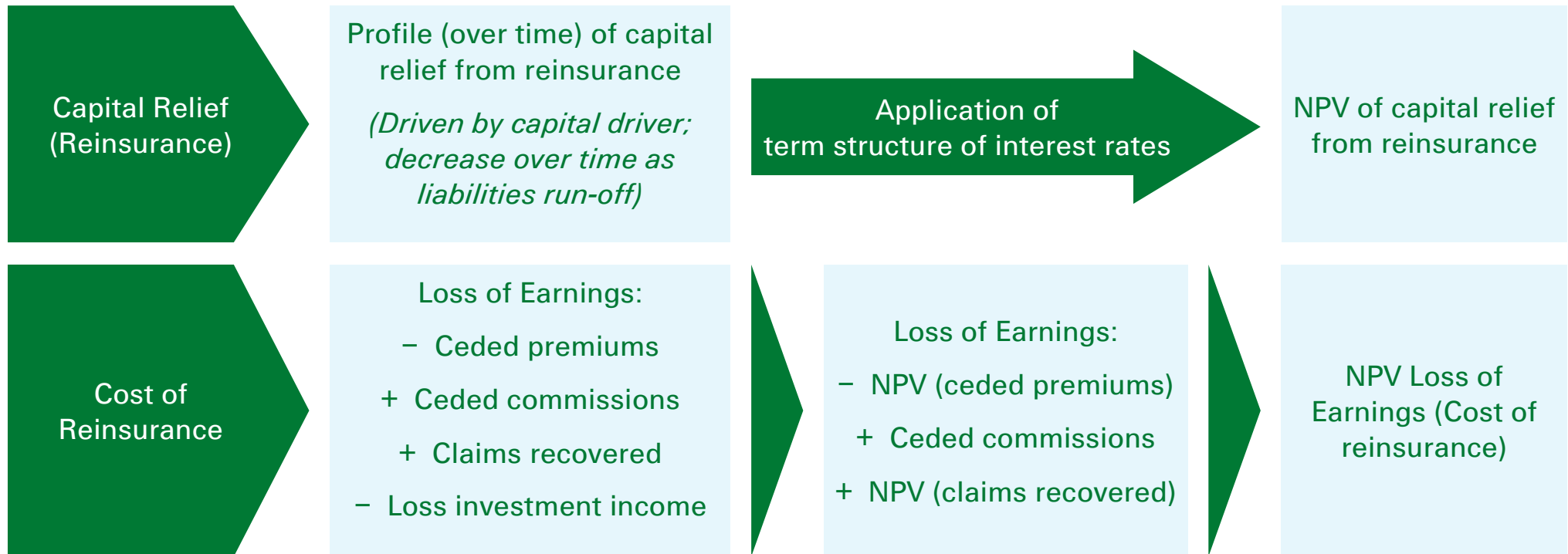
- Reduction of market risk due to the reduction of investments



Reinsurance as a capital management instrument



Relative value of reinsurance vs. other capital alternatives



$$\text{Cost of Capital relief (pre tax)} = \frac{\text{NPV (Loss of Earnings)}}{\text{NPV (Capital Relief)}}$$

Reinsurance vs. other financing tools

	Equity	Subordinated debt	Reinsurance
1 Improve capital adequacy	✓	(✓)	✓
2 Enable internal growth	✓	✓	✓
3 Finance external growth	✓	✓	(✓)
4 Optimise capital structure	x	(✓)	✓
5 Stabilise earnings	x	x	✓



Conclusions

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- QIS 5 Results overall show a sufficient capitalisation of the European insurance markets, which is also the case for Slovenia as the entire market
- Capital drivers vary depending on the underlying scope of activity of the insurance operation
- Reinsurance solutions effectively support the optimisation of the capital structure.
- The mix of capital instruments require an economic evaluation of costs and a careful assessment of the circumstances.

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... the floor is yours

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