Quantitative impact of Solvency II

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TrygVesta

Solvency II

Current regime Solvency I is outdated:

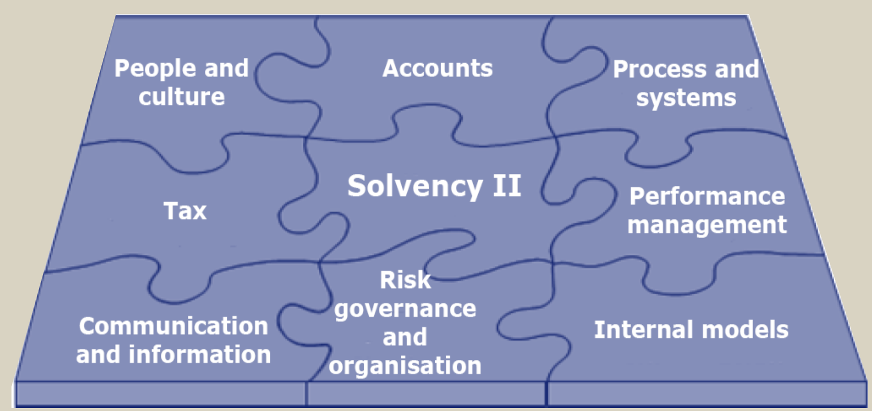
- Lacking risk sensitivity and transparency
- No common approach between supervisory authorities across EU
- No link between capital requirement and actual risk/capital management

Solvency II structured in 3 pillars

Solvency II

Quantitative	Governance	Reporting
• SCR, MCR • Own funds	• Risk management • ORSA	• FSA • Public disclosure

The Solvency II puzzle



Source: Deloitte

Capital management in TrygVesta

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Capital management (model support)

- Participation in (all) QIS
- Latest QIS (including CP effect) reported quarterly to SB

Internal model used for Solvency 1½

Following IPO:

- Capital in excess of S&P (A) is released
- Quarterly reporting on www

Solvency 1

2000 2002 | 2003 2005 | 2006 2007 | 2008 2010 | 2011 2012

Internal model initiated

Reinsurance restructured

Target setting

Reinsurance policy & Investment policy for SB

Solvency 1½

Use of Internal model

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Main updates in QIS 5 - preliminary

Several increases imposed in post financial crisis CP's have been dampened

QIS 5 Main updates - preliminary	Relative to QIS 4	Relative to recent CP
Allowance for diversification between lines of business in the calculation of the risk margin (to technical provisions)	-	-
Allowance for geographical diversification		(-)
Spread risk increased	+	-
Equity charge muted	+/-	-
Increase in correlations moderated	+	-
Operational Risk charge reduced	+	-
Increased allowance for non-proportional reinsurance	-	-
Intangible assets eligible with a net positive effect of 20%	-	-
Risk free rates based on swap curves with illiquidity premium (previously AAA-rated gov's and no premium)	-	-

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Operational risk

- Operational risk has moved up and down since QIS4
- Latest calibration is lower than CP's

CALIBRATION OF THE OPERATIONAL RISK

	Risk factor proposed by the Commission	Risk factor proposed by CEIOPS
Technical Provisions - life	0.45%	0.6%
Technical Provisions - non-life	3%	3.6%
Premium - life	4%	5.5%
Premium – non-life	3%	3.8%

Other

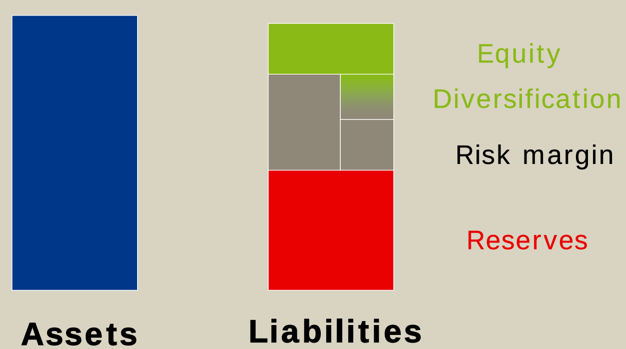
- Reinsurance formula updated to better reflect the properties of non proportional cover
- Recognised intangible assets included as Tier 1 capital
  - Capital charge of 80%
  - Net positive effect of 20%

Diversification benefits

- Geographical diversification has been readopted for non-life companies, however Northern Europe incl. the Nordics constitutes *one* segment
- In practice risks are correlated within the Nordic countries, but not perfectly correlated

Geographical diversification

- Allowance for diversification between LoBs when calculating risk margin to reserves
- Previously no allowance for diversification
  - Rationale behind this was that margins should support a stand-alone transfer of each LoB
- In QIS5 this will lead to higher equity compared to QIS4. However, companies with no current margin to reserves will face lower equity



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Spread and equity risk

- Increase in spread risk under financial crisis
- Significantly higher charges e.g.:
  - AAA rating, 5 year maturity:

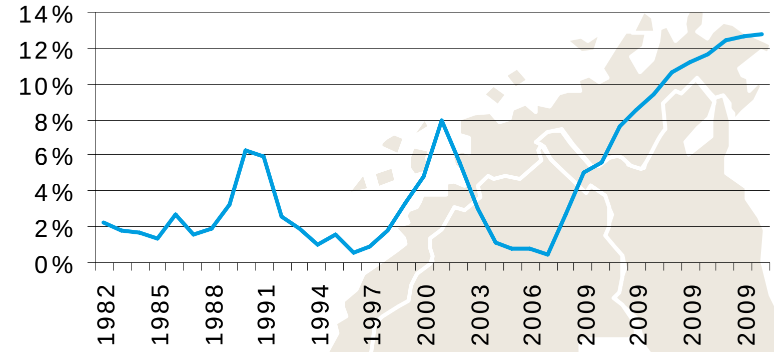
    1.1% **5.0%**
  - QIS5 down from recent CP's but other rating buckets remain elevated. All in all positive for TrygVesta.

- Equity volatility peaked during the crisis
- Equity risk charge:

  32% 39%
  - pro-cyclical dampener introduced: Current charge of **30%** (equal to maximum dampening) takes QIS5 below both recent CP's and QIS4
- Property risk charge:

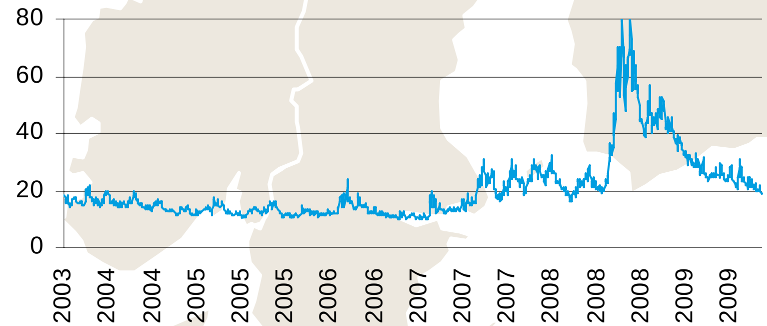
  20% **25%**

Spread risk: Default rates – spec grade



Source: S&P and Moody's

Equity volatility



Source: S&P

Correlations

- Introduced correlation between basic insurance risk and **CAT-risk**

  0% ↗ **25%**

  Minor overall impact

- Removed correlation between Non-life risk and **Health risk**

  25% ↘ **0%**

  Significant

- Removed correlation for concentration

  75% ↘ **0%**

  Minor overall impact

Change in the correlation for **market risk**

QIS5 market correlation matrix

CorrMkt	Int. rate	Equity	Prop.	Spread	Conc.	Fx
Int. rate	100%					
Equity	50%	100%				
Prop.	50%	75%	100%			
Spread	50%	75%	50%	100%		
Conc.	0%	0%	0%	0%	100%	
Fx	25%	25%	25%	25%	0%	100%

CP market correlation matrix

CorrMkt	Int. rate	Equity	Prop.	Spread	Conc.	Fx
Int. rate	100%					
Equity	50%	100%				
Prop.	50%	75%	100%			
Spread	50%	75%	75%	100%		
Conc.	75%	75%	75%	75%	100%	
Fx	50%	50%	50%	50%	50%	100%

QIS4 market correlation matrix

CorrMkt	Int. rate	Equity	Prop.	Spread	Conc.	Fx
Int. rate	100%					
Equity	0%	100%				
Prop.	50%	75%	100%			
Spread	25%	25%	25%	100%		
Conc.	0%	0%	0%	0%	100%	
Fx	25%	25%	25%	25%	0%	100%

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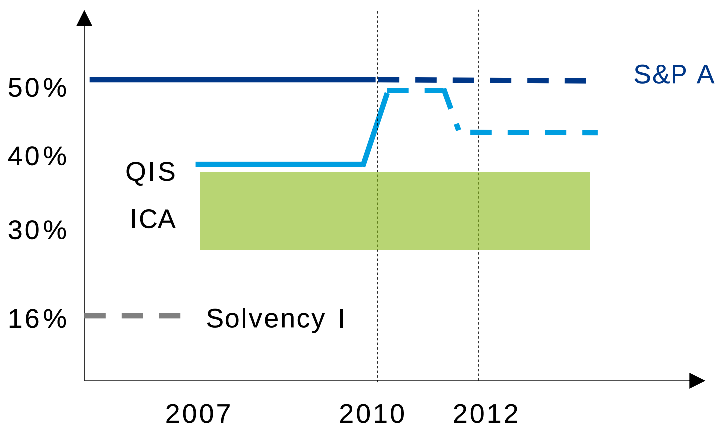
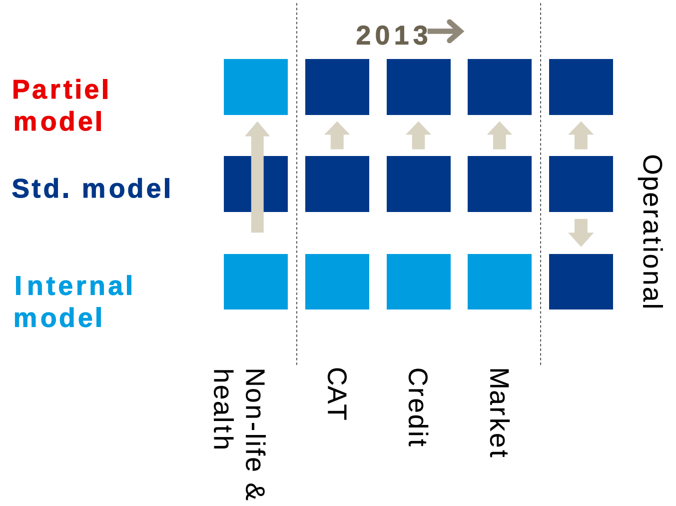
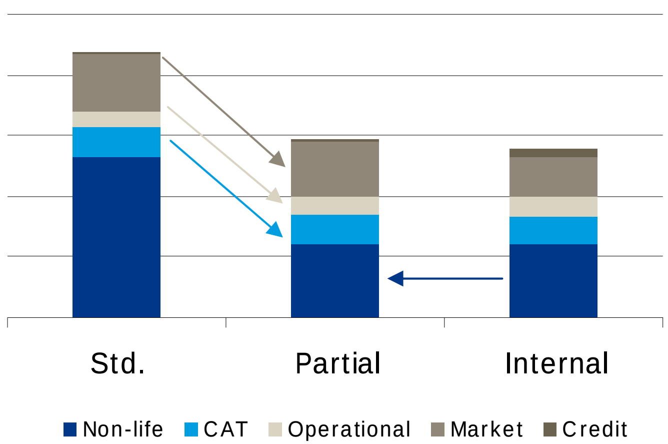


- A partial internal model is the standard model with one or more components being replaced by similar components from the internal model
- Measures of Market risk are not company specific, and the standard model reflect well essential features such as matching of interest risk: Less reason for using internal model.
- Insurance risk can vary considerably across Europe

TrygVesta intends to use partial internal model





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Summary

The standard model represents a clear improvement to previous regimes (Solvency I & Solvency 1½). Clear link between risk and capital

Much can still go wrong in the SII implementation. E.g. the balance between Compliance and DW versus Risk analysis

Continued strong capital position despite adverse claims and equity markets development in 2010.

Capital level of S&P (A) is expected to contain a cushion compared to QIS5

Increased capital requirements will pose a challenge to some industry players

The potential for use of internal model is still there

TrygVesta will be entering pre-approval process with Danish FSA regarding internal model