The Swiss Solvency Test

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Legal Introduction of the Swiss Solvency Test - SST

SST in force for primary companies

2006
2007
2008
2009
2010
2011

SST in force for all insurers, reinsurers and groups

Capitalization according to SST mandatory

New Insurance law in force
Supervision in the Past: Statutory Valuation

“*The actuarial convention according to which the composition of the assets determines the size of the liabilities is one of the weirdest emanations of the human mind. It's a metaphor - like saying that the advent of jet planes made the Atlantic narrower - and metaphor has a limited place in finance*”

Martin Taylor, chairman of WHSmith's pension fund

- Discount rates for liabilities were set with reference to an expected asset profit based on past experience
- Implicit - often unknown - prudence in liabilities
- No explicit valuation of embedded options and guarantees
- **Solvency 1:** No capital requirement for market and credit risk

- High risk assets resulted in reduction of liabilities
- Sales-forces pushed for adding high guarantees to life policies
- Cash flow underwriting
- Downward spiral when business contracts
- Underwriting cycles are exacerbated

Source: Swiss Federal Department of Finance (FDF) and Federal Office of Private Insurance (FOPI)
Solvency I poorly measures risk

- Solvency I reflects risks extremely poorly and is the reason for some company failures and near-failures in the past
  - in particular inexistent measure of asset-liability management
  - financial market options embedded in many Life products not recognized

- SST shows that Solvency I is a useless measure for the true risk:

  Zero correlation between Solvency I and SST results for Non-Life companies!

Source: Swiss Regulator, Results of Field Test
SST: Total balance sheet approach

- All assets and liabilities need to be valued on a market consistent basis
- All risks (and their interactions) that assets and liabilities are exposed to need to be considered

实事求是, We must seek truth from facts
邓小平, Deng Xiaoping

Financial Market Risk
Liquidity Risk
Operational Risks
Credit Risk

Market value of assets
Market value of liabilities
Available Solvency Capital

Financial Market Risk
Insurance Risk
Operational Risks
Credit Risks

Standard Approach
Internal Model

Solvency Capital Requirement

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The Swiss Solvency Test: Standard Models

- Standard Models or Internal Models
- Market Consistent Data
- Mix of predefined and company specific scenarios

Risk Models
- Market Risk
- Credit Risk
- Life
- P&C
- Health

Valuation Models
- Market Value Assets
- Best Estimate Liabilities
- MVM

Scenarios
Output of analytical models (Distribution)
Aggregation Method
Target Capital
SST Report
Under the SST each company has to evaluate the impact under a set of given scenarios.

Prediction is very difficult, especially about the future

Niels Bohr

Source: Swiss Federal Department of Finance (FDF) and Federal Office of Private Insurance (FOPI)
Change in SST Ratio due to Impact of Historical Scenarios (Intervention Levels)

Intervention Levels:

1. **Green Level** – SST ratio remains over 100 %
2. **Yellow Level** – SST ratio falls below 100 %, but remains over 60 %
3. **Orange Level** – SST ratio is reduced to less than 60 %

Total Impact of Scenarios on the Swiss Life Market

Source: Swiss Federal Department of Finance (FDF) and Federal Office of Private Insurance (FOPI)

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Implementation of new Regulation:
Key Success Factors

- Risk culture: Willingness to know about risks and acceptance that strategy has to be aligned with the company’s risk bearing capacity, engaged board of directors
- Open dialogue within the company (e.g. departments communicate well, in particular CRO, CFO, Actuary and CIO)
- Direct reporting line of the CRO to the CEO
- Integrity of responsible persons
- Risk management and capital management aligned
- Deep know-how of model experts, know-how and support of senior management and the board

Source: Swiss Federal Department of Finance (FDF) and Federal Office of Private Insurance (FOPI)
Swiss Re’s view of an Efficient Regulatory System

- Fosters comprehensive risk management
- Balances policyholder costs vs protection
- Recognises risk mitigating benefits
- Allows liquidity and mobility of capital
- Consistency of implementation
- Allows flexibility in investments and ownerships
- Recognises home supervision for foreign companies / groups
- Based on economic principles
- Recognises diversification
- Balances policyholder costs vs protection
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Questions?

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