

European Actuarial Academy

an initiative of the 'Deutsche Aktuarvereinigung', the Dutch 'Actuariel Genootschap', the 'Schweizerische Aktuarvereinigung' and the 'Aktuarvereinigung Österreichs'

ORSA: A relevant part of the governance system within Solvency II

Prof. Dr. Martin Balleer,
Georg-August-Universität Göttingen
Germany

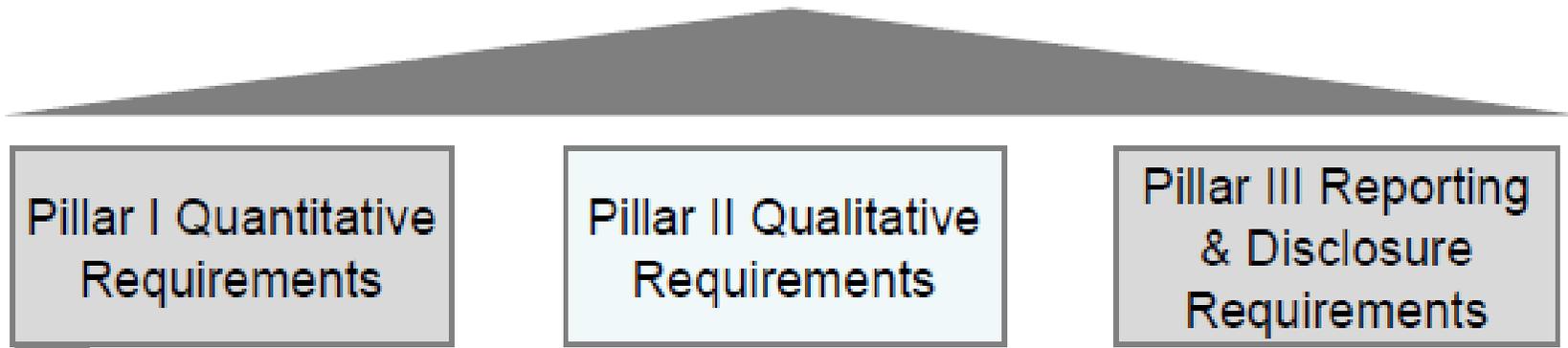
Faculty of Economics Belgrade University
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Introducing comments:

Solvency is going to become one of the most relevant indicators of the financial position of an insurance company; the quality of risk management and the capital management therefore have become important.



→ Solvency Quota = Solvency Capital Requirements (SCR)/ Own Funds



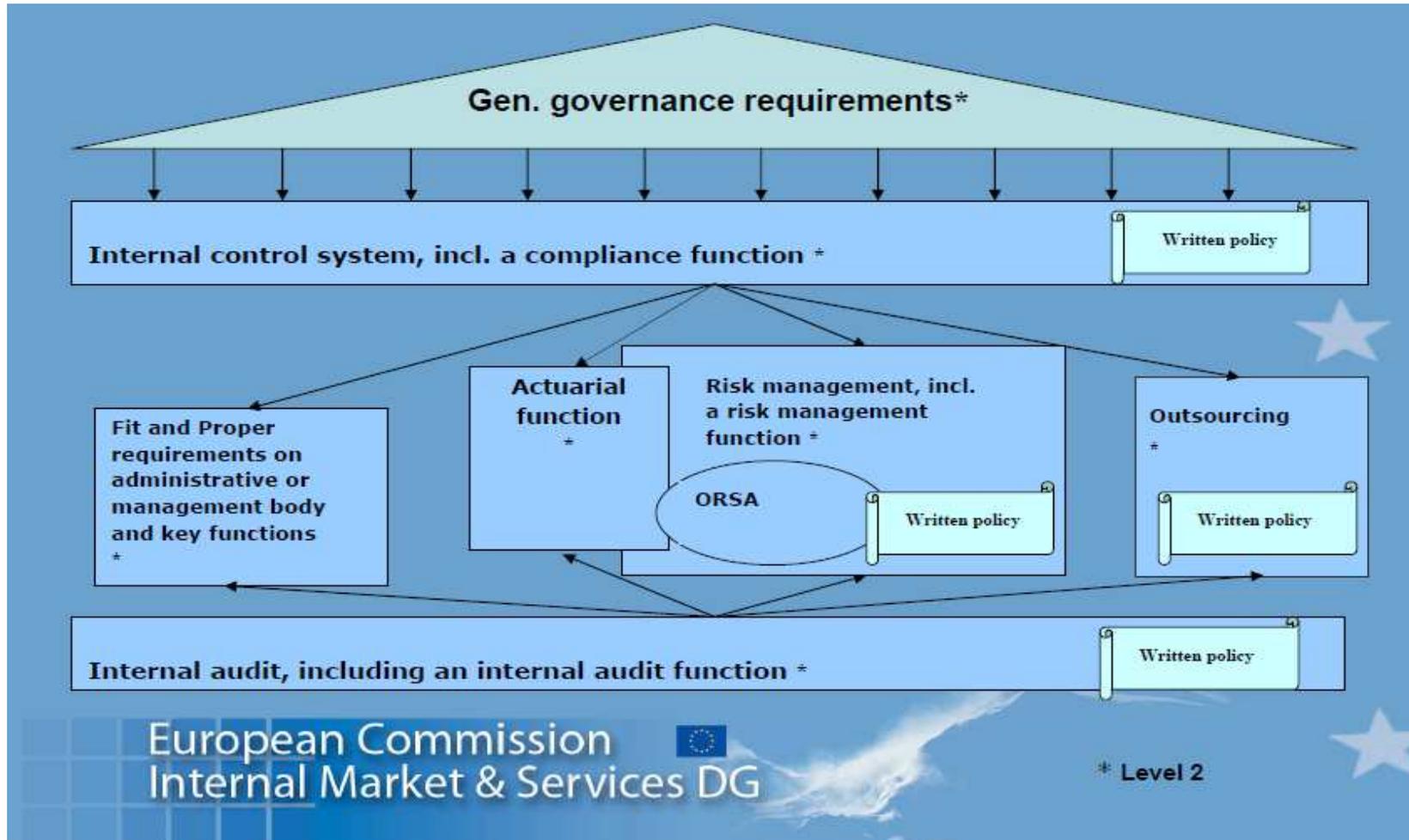
Solvency II: 3-pillar-concept



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Governance System	
41	General Governance Requirements
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45	Own Risk and Solvency Assessment
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The role of ORSA within the Governance System





- Previous solvency concepts have only dealt with quantitative requirements with regard to the solvency quota and haven't integrated qualitative requirements
- Solvency II has integrated qualitative requirements with regard to the governance system (Pillar II) and reporting (Pillar III).
- ORSA (= Own Risk Solvency Assessment) is a very relevant component of the governance system in order to ensure the quality of the solvency situation as well as the confidence in the financial strength of the company by the stakeholders
- The influence of ORSA might even be as great as the quantitative requirements according to Pillar I.



Solvency II is important to companies because it could have significant impact on....

- ▶ Customer prices (because of risk based capital)
- ▶ Investor profit implications (capital)
- ▶ Affinity partners (and other stakeholders) confidence in the way in which the business manages risk and uncertainty

The ORSA can be seen as a lens through which regulators will view success or not from a Solvency II perspective

The impact on companies if regulators are unhappy with progress can be significant

- ▶ Requirement to hold more capital
- ▶ Possibility of fines and penalties
- ▶ Reputational impacts
- ▶ Increased "hassle"



Solvency II Directive - Article 45:

“As part of its risk management system every undertaking shall conduct its own risk and solvency assessment”.

ORSA Definition

“.. the entirety of the processes and procedures employed to identify, assess, monitor, manage, and report the short and long term risks a (re) insurance undertaking faces or may face and to determine the own funds necessary to ensure that the undertaking’s overall solvency needs are met at all times.”
(CEIOPS, May 2008)

Overall solvency needs taking into account the specific risk profile, approved risk tolerance limits and business strategy

Compliance with the capital requirements and regarding technical provisions

Extent to which the risk profile of the company deviates significantly from assumptions underlying the SCR, calculated with the standard formula or with its partial or full internal model





ORSA – Key Principles

Compulsory

Every company has to perform their own risk and solvency assessment. The supervisory authorities are informed about the results in Pillar 3 reporting.

Forward-looking and Integrated

ORSA has to be an integral part of the business strategy and plans and results should be used continuously for strategic decisions.

Principles ORSA

Regularity and Completeness

The assessments should be done on a regular basis and without any delay if the risk profile changed materially due to management decisions. All risks have to be considered.

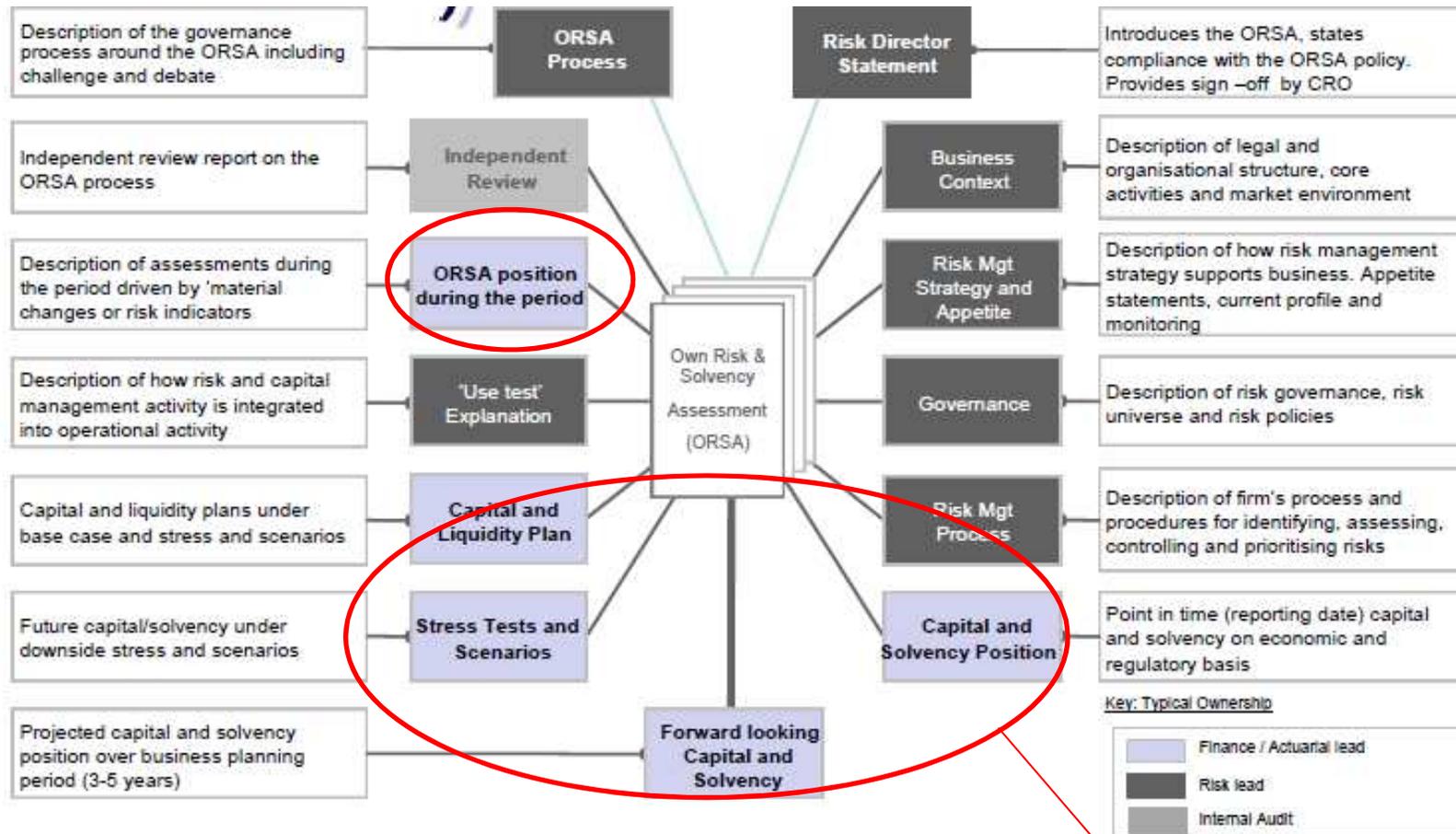
Documentation and Verification

The ORSA process and its results should be proved accurately and sufficient internally documented. As a matter of course the ORSA process has to be part of the regular internal audit.

ORSA does not have to be completely new invented but can be established on already existing fundamentals. Finally the results of the processes have to be documented in an ORSA report.



ORSA - Components



ORSA components are wide ranging and arise from various sources. For example, the ORSA report requires involvement of several different functions including Risk, Finance and Actuarial



**EIOPA Final Report
on Public Consultation No. 11/008
On the Proposal for
Guidelines
On
Own Risk and Solvency Assessment**

Text 2.2.:

ORSA is an important element to improve the risk management of EU (re)insurers, to promote a better understanding of the undertaking's overall solvency needs and capital allocation as well as the interrelation between risk and capital management. As a consequence, ORSA should ensure better policyholder protection. Moreover, the presented requirements should guarantee that sufficient and clear information on a company's risk profile and capital position is provided to the public and is not misleading.



Guideline 1 – Principle of proportionality

The undertaking should develop its own processes for the ORSA, tailored to fit into its organisational structure and risk management system with appropriate and adequate techniques to assess its overall solvency needs, taking into consideration the nature, scale and complexity of the risks inherent to the business.

Example: Parameter setting

For a more **accurate reflection of the risk profile** as part of the ORSA, an insurer can adjust the calibrated risk factors set by EIOPA with **undertaking specific parameters (USP's) within the Standard Formula** . These USP's better reflect the portfolio of the insurer.

What are USPs?

- ▶ In the Insurance Risk modules (Life, Non-Life, Health) **a subset of the predefined parameters can be calculated undertaking specific**
- ▶ USPs need to be calculated based on **the own and external data**, which is directly relevant for the insurance business of the undertaking.

Which benefits have USPs?

- ▶ A possible more accurate reflection of the own risk profile, i.e.:
 - ▶ **Insurance companies with special or exclusive customers** often profit from less volatile claims than assumed in the Standard Formula
 - ▶ **Insurance companies with non-proportional reinsurance** can take these USP's into account for risk reduction compared to the Standard Formula



Guideline 2 – Role of management

The administrative, management or supervisory body should take an active part in the ORSA including providing steering on how the assessment is to be performed and challenging its results.

Guideline 3 – Documentation

The undertaking should have in place at least the following documentation on the ORSA:

- a) ORSA policy;
- b) record of each ORSA;
- c) internal report on ORSA; and
- d) ORSA supervisory report.



Guideline 4 – ORSA policy

- 1.17. The ORSA policy should comply with the guidelines established under General Governance – Policies and include additionally at least:
- a) a description of the processes and procedures in place to conduct the ORSA including how the forward-looking perspective is addressed;
 - b) consideration of the link between the risk profile, the approved risk tolerance limits and the overall solvency needs;
 - c) information on:
 - (i) how stress tests, sensitivity analyses or reverse stress testing are to be performed and how often they are to be performed;
 - (ii) data quality requirements; and
 - (iii) the frequency and timing for the performance of the (regular) ORSA and the circumstances which would trigger the need for an ORSA outside the regular timescales.



Company strategy

General policy of the company: targets, plans, market expectations, time horizon

Risk strategy

Risk strategy derived from the company's strategy with regard to the financial impact and resulting plans and limits

Risk tolerance

Quantification of the relevant risks, definition of limits

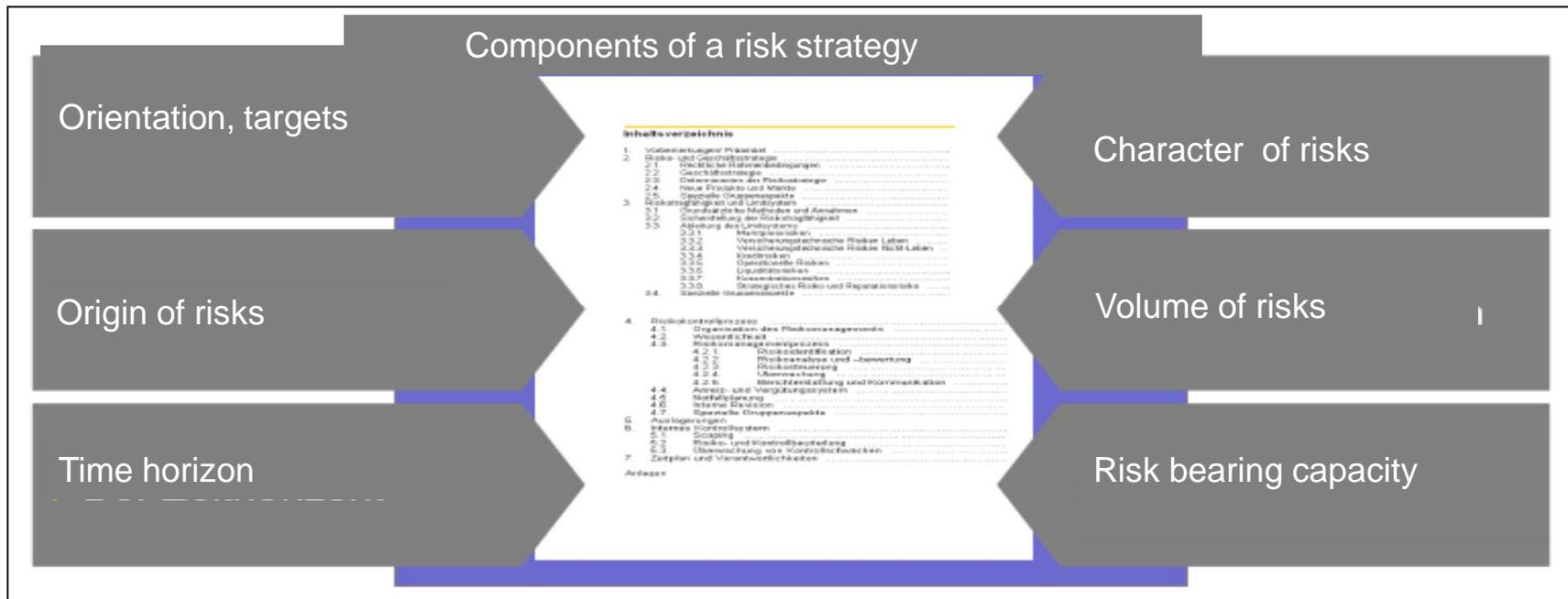
Organization,
Governance

Responsibilities, business processes, governance requirements, internal audit



Guideline 7 – Valuation and recognition

„If the undertaking uses recognition and valuation bases that are different from the Solvency II basis in its assessment of its overall solvency needs, it has to explain how the different recognition and valuation bases ensure better consideration of the specific risk profile, approved risk tolerance limits and business strategy of the undertaking. While complying with the requirement for a sound and prudent management of the business.“(1.20)





German Minimum
requirements
for risk management
(MaRisk)

The Risk Strategy...

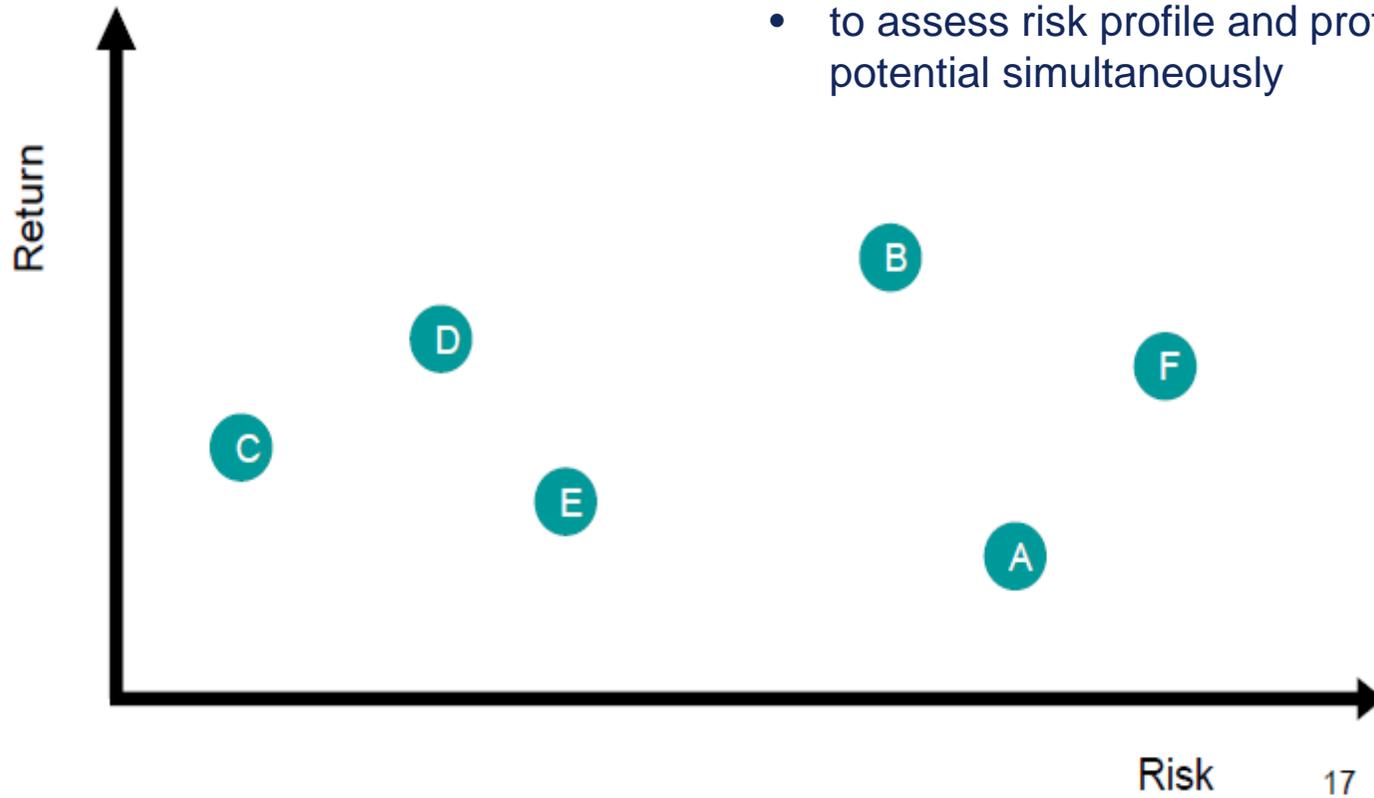
- describes how risks resulting from the business strategy are dealt with;
- must be consistent with the business strategy and reflect day-to-day operation;
- refers to the category, scope, source and time horizon of the risks as well as the risk bearing capacity;
- must be updated at least once a year or when there are new products, new business segments or any significant changes in the risk environment or risk assessment;
- must be set and documented by top management. This responsibility cannot be delegated.
- has to follow the principles of proportionality and materiality



Which strategy would you select?

Challenge:

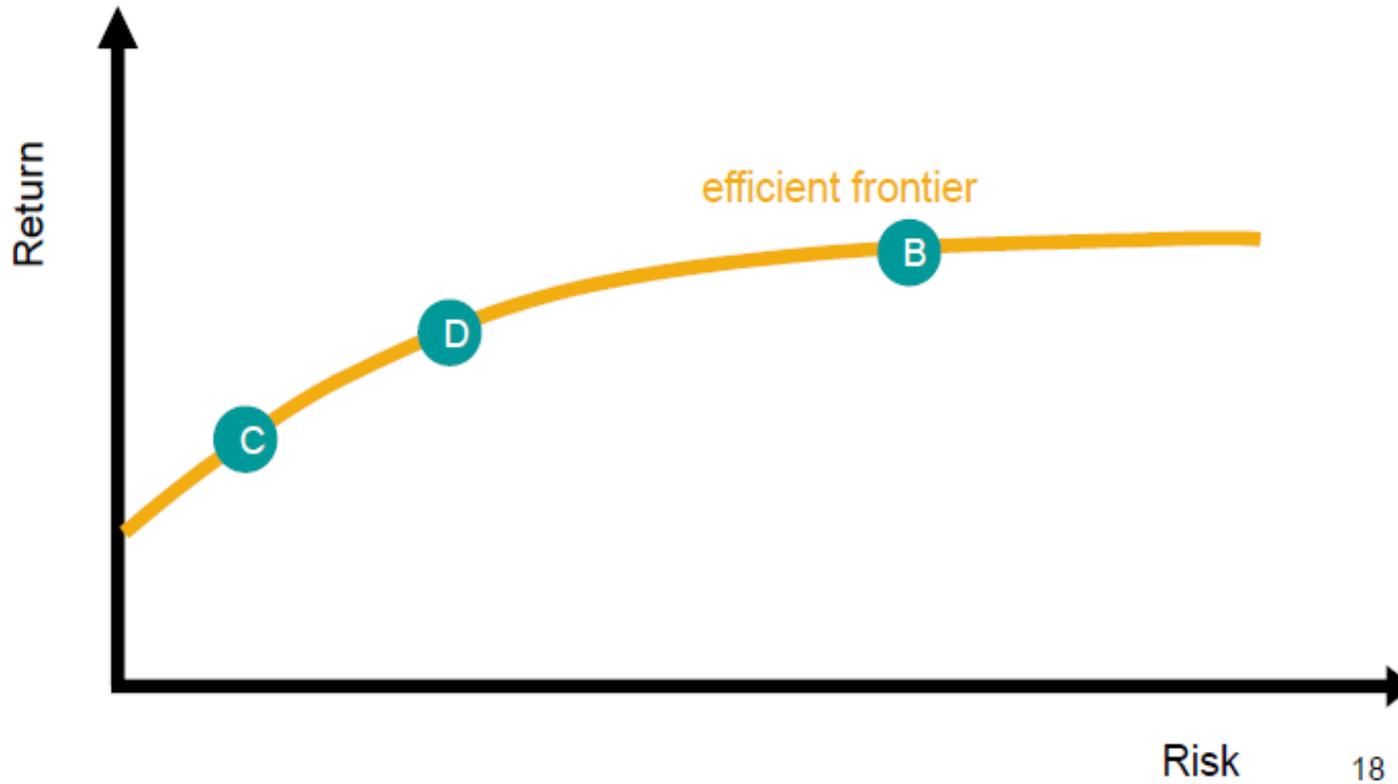
- to generate value by maximizing profit
- to assess risk profile and profit potential simultaneously



Source: EAA seminar „Risk Management“, Frankfurt 2012



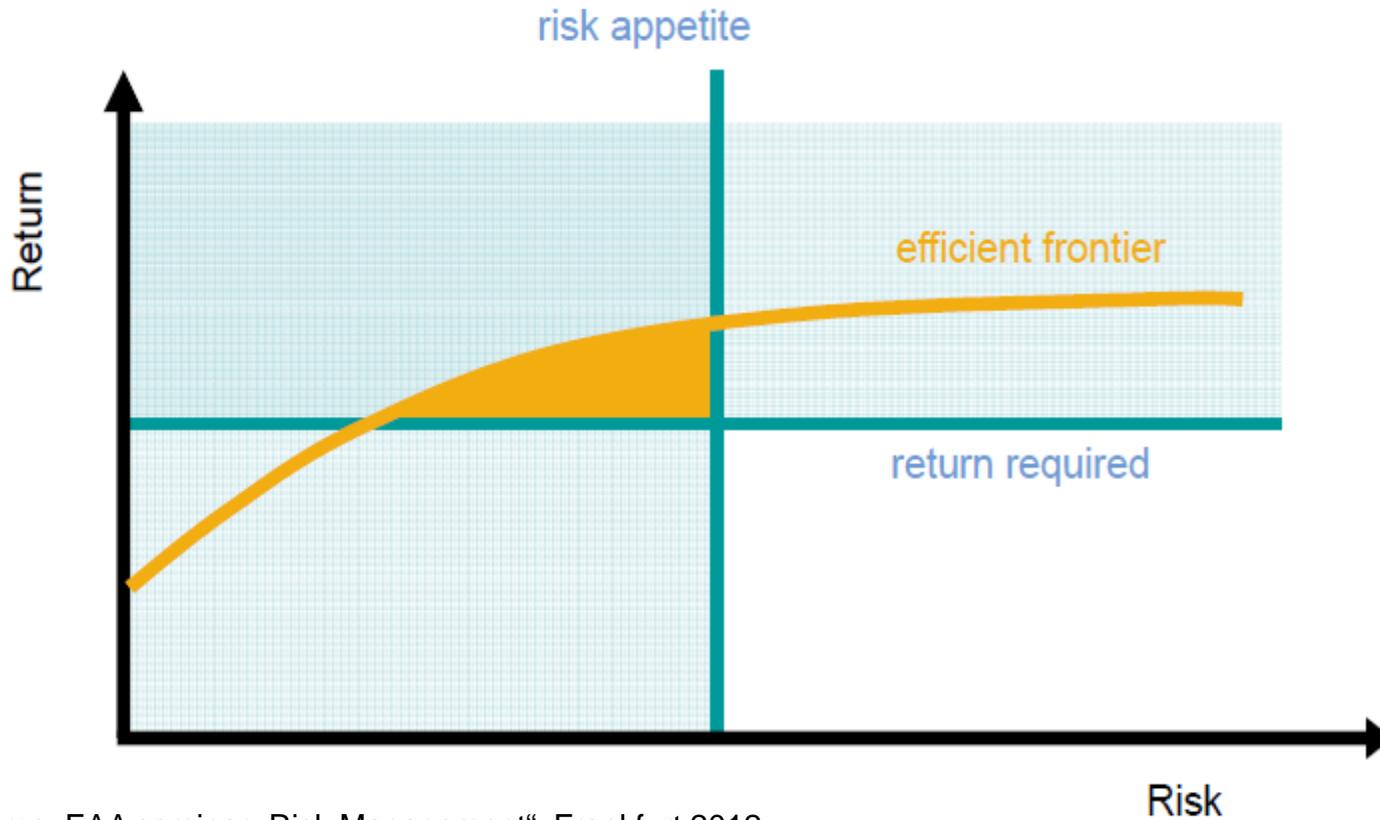
Which strategy would you select ?



Source: EAA seminar „Risk Management“, Frankfurt 2012



Which strategy would you select ?

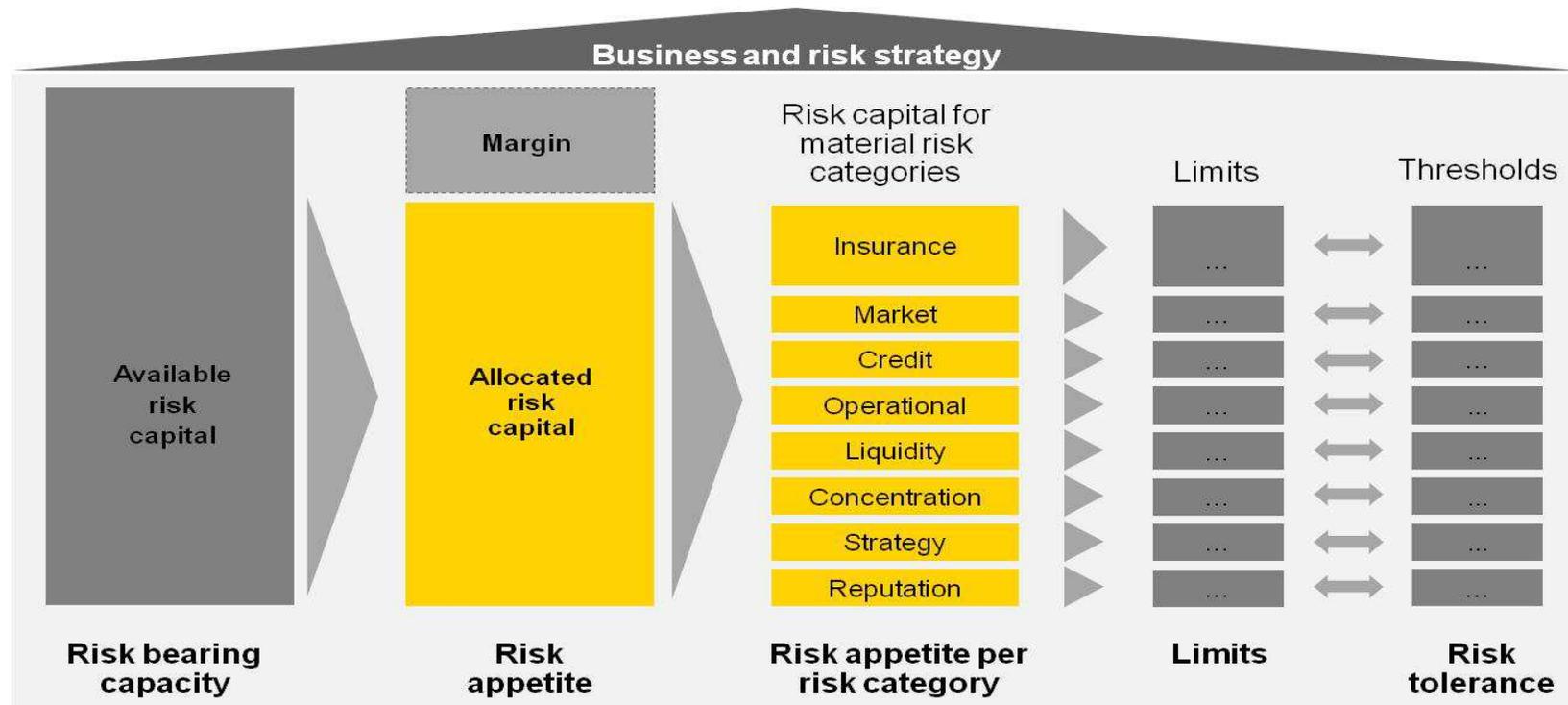


Source: EAA seminar „Risk Management“, Frankfurt 2012



Managing risk tolerance

- An insurer should establish and maintain a risk tolerance statement which sets out its overall quantitative and qualitative tolerance levels and defines tolerance limits for each relevant and material category of risk, taking into account the relationships between these risk categories.
- The risk tolerance levels should be based on the insurer's strategy and be actively applied within its ERM framework and risk management policy. The defined risk tolerance limits should be embedded in the insurer's ongoing operations via its risk management policies and procedures.



- **Risk Appetite** addresses the attitude of the company towards overall and main risk categories of the company
- **Risk tolerance limits** express the restrictions the company imposes on itself when taking risks
- **Risk Bearing Capacity** describes the relation between the available and required risk capital



Levels of risk limit systems

- Companies have to provide an assessment of the risk-bearing ability, that is consistent with the aims of the risk strategy as well as with those of the business strategy.
- Limits for the company's most important business areas, that need to be controlled, have to be derived from the risk-bearing ability.
- The limit can be provided at the level of organisational units, products, tariffs, risk types
- Limits have to be available for all management levels and risk types.
- Limits may be segment specific and must be clearly allocated to the management responsibility of a specific party.
- Limits can be quantitative (e.g. VaR-limits, liquidity limits etc.) and/or qualitative (e.g. underwriting guidelines and exclusions, operational limits etc.)



Examples for limits (asset management)

- Strategic Asset Allocation, Tactical Asset Allocation
- Target yields & benchmarks
- Asset Liability Mismatch (duration gaps)
- Stop Loss-Limits
- Risk budgets (income statement oriented)
- Value at Risk-Limits (absolute and relative)
 - Equities
 - Interest rate change
- Stress test limits
 - Scenario limits
 - Market scenarios
 - 90 days worst case scenarios
 - Historical worst case scenarios
 - Situation-specific ad hoc stress scenarios



Example:

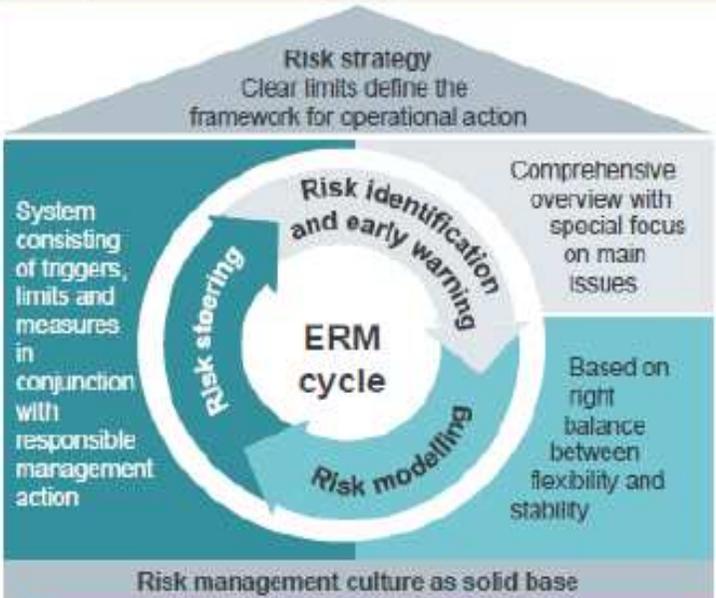
1 Risk management

Munich Re's enterprise risk management (ERM) safeguards investors' interests and clients' protection



Munich RE

Components of Munich Re's ERM



Objectives

- Protect and generate sustainable shareholder value
- Ensure the highest degree of confidence in meeting policyholders' and cedants' claims
- Protect Munich Re's reputation

Business embedding

- Risk steering
- Pricing/underwriting
- Liability-driven investment strategy
- Performance measurement
- Management compensation

Risk management is a key part of our corporate management – already in line with new regulatory regime Solvency II

Commerzbank German Investment Seminar 2012

6



Guideline 13 – Link to the strategic management process

„The undertaking should take the results of the ORSA and the insights gained in the process into account at least for the system of governance including medium term capital management, business planning and product development and design.“ (1.28)





Guideline 8 – Assessment of the overall solvency needs

„The undertaking should express the overall solvency needs in quantitative and qualitative terms and complement the quantification by a qualitative description of the risks.(1.22.)

If this, and where appropriate the undertaking should subject the identified risks to a sufficiently wide range of stress/scenario analyses to provide an adequate basis for the assessment of the overall solvency needs. (1.23.)“

Definition of stress- and scenario tests for **all** significant risks:

- Stress tests should analyse the impacts on IFRS and local balance sheet.
- In context of capital projection the stress- and scenario tests enable statements about progress in solvency when there is a deviation to best estimate planning.
- The concept of „Reverse Stress Tests“ to identify potential risks and the work on multi annual effects should be considered.
- Results of stress- scenario tests are useful for the validation of the internal model and for estimation of model deficiencies and related risks.



ORSA – Stress Testing

Definitions

Sensitivity Tests

Stress Test

Scenario-Analyse

Reverse Stress Test

- Assessment of variability of results when individual economic variables, loss assumptions, risk factors are changed, e.g. models, planning process, etc.
- Analysis of the impact and adverse – but possible – change in economic conditions might have on the financial condition of an undertaking
- An integrated scenario defines movements in a number of risk drivers that are logical and realistic relative to one another
- Identification and assessment of scenario/stresses, that would lead to insolvency of the undertaking

- ORSA text requires a reverse stress test (RST) the most probable stresses that would threaten the viability of the company

- Need to define ‘viability’:

- Closure to new business
- Breach of SCR or MCR
- Credit rating downgrade
- Breach of technical provisions
- Illiquid
- Unable to pay dividend

Loss required to breach SCR

Equity
Interest Rate
Real Estate
Credit Spread

Key market risks scenario

972 m

Contribution	Loss	Stress rate
2%	20 m	-41%
8%	77 m	-0.94%
2%	17 m	-17%
88%	858 m	2.57%



Stress, scenario, sensitivity testing (SSST)

Important in order to:

- Increase insurer’s risk awareness
- Quantify impact of potential losses (“what if”) scenarios
- Be prepared in adverse and have mitigating actions or response strategies at hand when needed

	2Q 2012	YE 2012	P1 2013	P2 2014	P3 2015
Base	248.6%	261.5%	274.2%	285.2%	288.0%
Scenario 1	248.6%	261.5%	252.4%	263.9%	267.6%
Scenario 2	248.6%	261.5%	148.3%	161.0%	169.3%
Scenario 3	248.6%	261.5%	346.4%	357.2%	356.9%
Scenario 4	248.6%	261.5%	-9.6%	6.7%	22.1%
Scenario 5	248.6%	261.5%	126.0%	133.2%	146.9%

...and in order to

- Satisfy requirements from supervisory authorities
- Review appropriateness of risk appetite and risk limits
- Help management better understand vulnerabilities of business plan and movements in capital position, to make business and capital planning decisions

...consideration of these scenarios sometimes is lacking

Comment: Development of meaningful SSST concept shouldn’t be understood as a pure regulatory exercise but rather as a framework that aids in the assessment of company’s ability to meet its capital & liquidity requirements in adverse conditions



Risk categories for stress and scenario testing

- ▶ Market risks (e.g. interest rate, equity, real estate, spreads, inflation)
- ▶ Default risk in particular for reinsurers and banks
- ▶ Underwriting risks Life
 - ▶ Longevity
 - ▶ Catastrophes (e.g. pandemic risk)
 - ▶ Lapse
 - ▶ Reputational risks
- ▶ Underwriting risks Health
 - ▶ Longevity
 - ▶ Catastrophes (e.g. pandemic risk)
 - ▶ Lapse
 - ▶ Cost inflation (medical costs)
 - ▶ Change in legal environment
- ▶ Underwriting risks Nonlife
 - ▶ NatCat and Terror events
 - ▶ Hyper- Inflation
 - ▶ Change in legal environment
- ▶ Operational risks (e.g. using ORIC categories)
- ▶ Liquidity risks e.g. for reinsurers
- ▶ Reputational risks
- ▶ Business risks (e.g. stagnation in new business, claims costs, availability of reinsurers, tax implications)

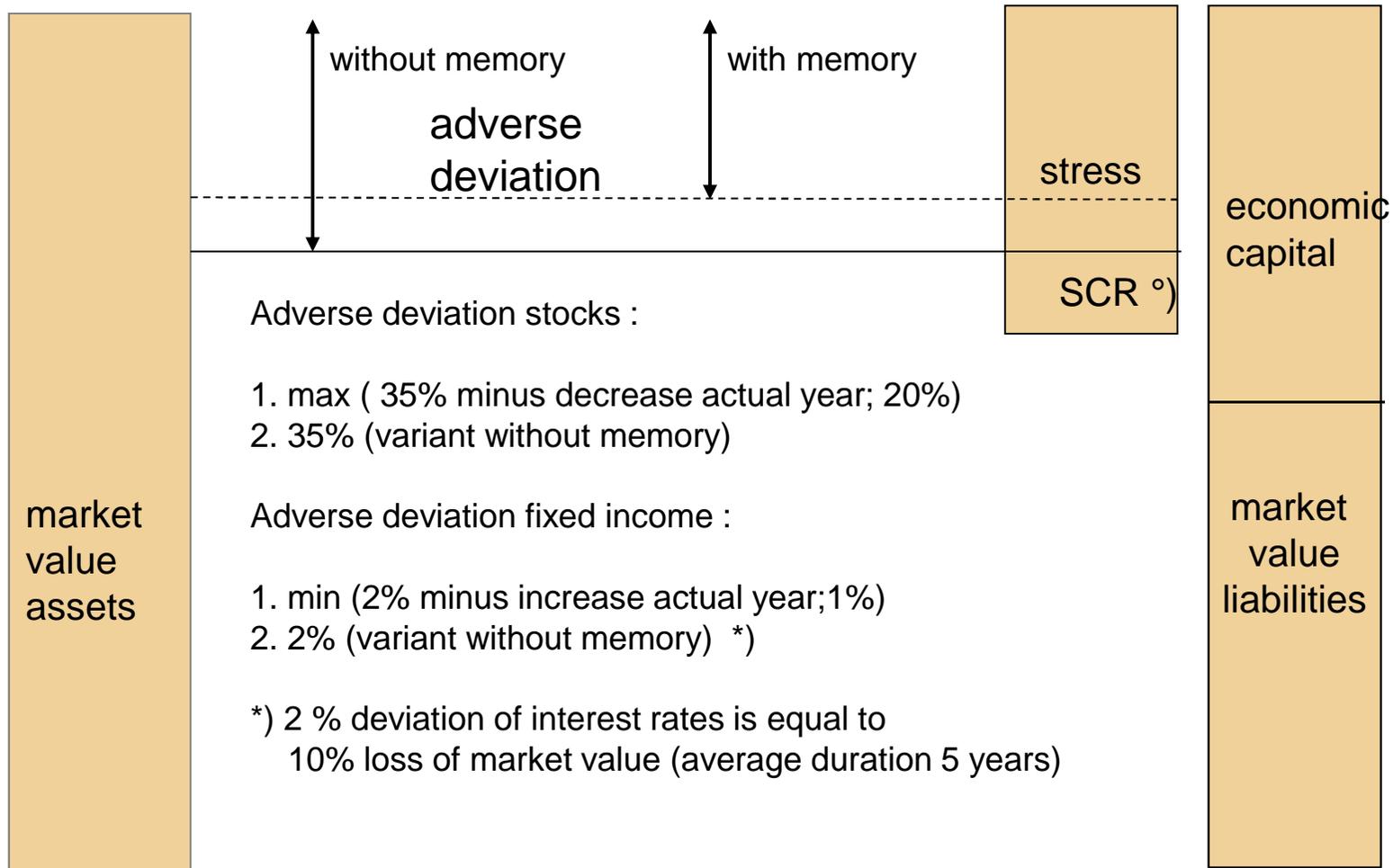
Recommendation for emerging countries:

To start with a limited number of stress tests instead of implementing the full complexity of Solvency II



ORSA – Stress Testing

Example Germany: Actuarial stress test °) SCR = Solvency I capital requirement





Bafin stress test

Calculation of market
and credit risks

Bafin = supervisory authority
Germany

Market risk	Until now: Solvency I + Bafin-stress test as a measure for the required capital !	Market Market Value	Loss in market value in stress scenario	
		PMR	%	thousand Euros (€ '000)
		31.12.2009		
Test R 10	Bond prices fall by 10%	217.710	-10,0%	21.771
Test A Index	Equity prices fall by 22%	226.054	-22,0%	49.732
Test RA 5 + Index	Bond prices fall by 5%	217.710	-5,0%	10.886
	Equity prices fall by 15%	226.054	-15,0%	33.908
Test AI 10 + Index	Property prices fall by 10%	41.654	-10,0%	4.165
	Equity prices fall by 15%	226.054	-15,0%	33.908



Bafin stress test	Test R 10: Bonds - 10 %	Test A Index: Equities - 22 %	Test RA 5 +Index: Equities - 15 % Bonds - 5 %	Test AI 10 + Index: Equities - 15 % Property - 10 %
Value of investments <u>before</u> stress test	1.067.783	1.067.783	1.067.783	1.067.783
- Decline in market value: equities		-49.732	-33.908	-33.908
- Decline in market value: bonds	-21.771		-10.886	
- Decline in market value: property				-4.165
- Credit risk markdown	-19.790	-19.790	-19.790	-19.790
= Value of investments after stress test	1.026.222	998.261	1.003.199	1.009.919
Other assets	59.209	59.209	59.209	59.209
= Value of assets after stress test 1	1.085.431	1.057.470	1.062.408	1.069.128



Bafin stress test		Test R 10: Bonds - 10 %	Test A Index: Equities - 22 %	Test RA 5 + Index: Equities - 15 % Bonds - 5 %	Test AI 10 +Index: Equities - 15 % Property - 10 %
Mathematical provision		850.786	850.786	850.786	850.786
+ Accumulation balances		60.604	60.604	60.604	60.604
+ Tied provision for bonuses and rebates		27.785	27.785	27.785	27.785
'= Provisions (exc. free PfB&R & terminal bonus reserve fund)		939.174	939.174	939.174	939.174
+ Other liabilities		5.001	5.001	5.001	5.001
+ Estimated participation on valuation reserves via direct credit		500	500	500	500
= Total liabilities (exc. own funds, free PfB&R & TBRF)		2 944.675	944.675	944.675	944.675



Bafin stress test		Test R10 Bonds - 10 %	Test A Index: Equities - 22 %	Test RA 5 +Index: Equities - 15 % Bonds - 5 %	Test AI 10 + Index: Equities 15 % Property - 10 %
Solvency requirement (Solvency I)	3	45.934	45.934	45.934	45.934
Hedging operations concluded (before 31 December)	4	0	0	0	0
Balance 1– 2–3+4		94.821	66.860	71.798	78.518
as % of 2 + 3 as minimum supervisory requirement		9,6%	6,7%	7,2%	7,9%



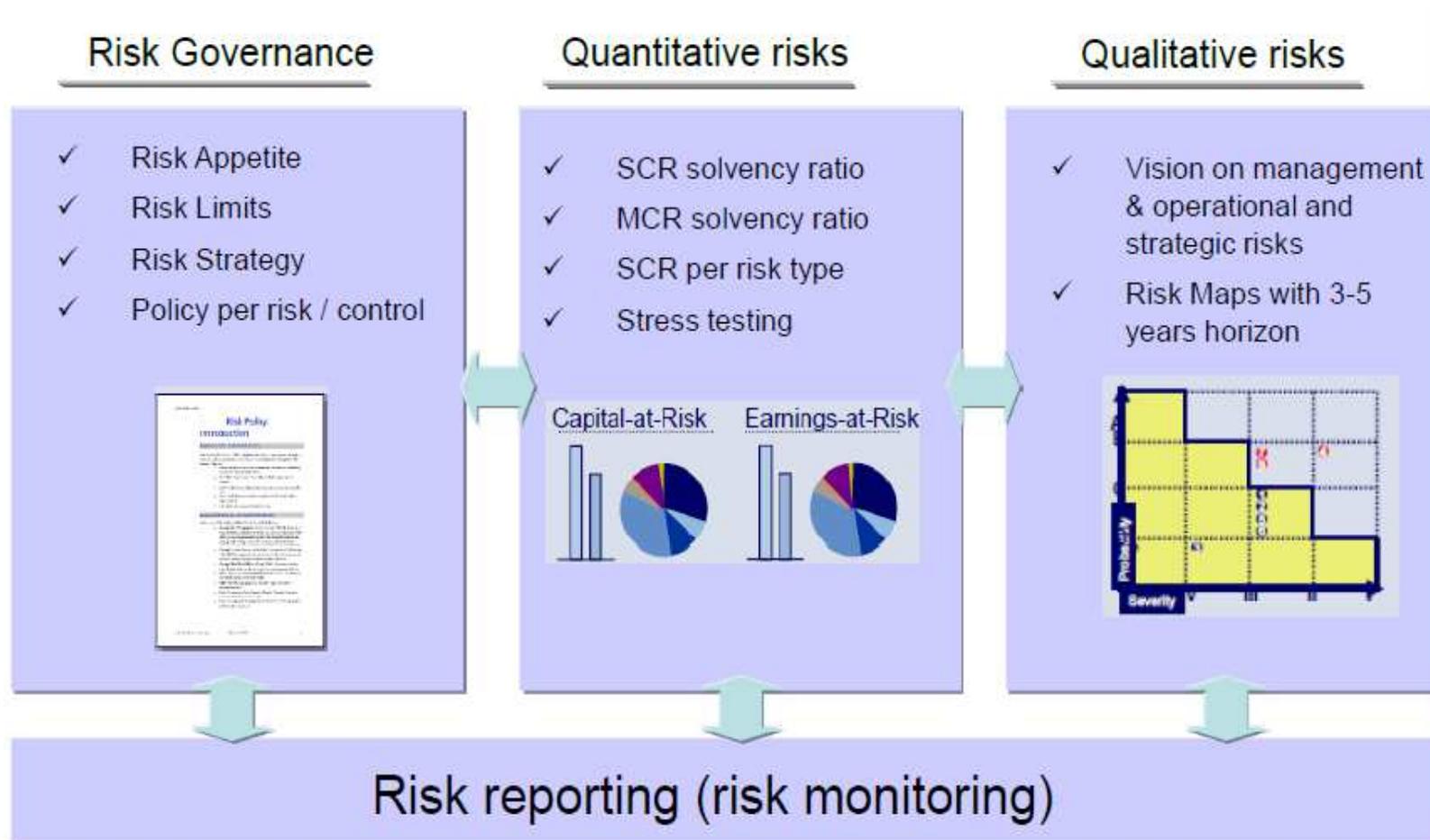
Stresses	2014 Core module Parameters	
	Adverse 1	Adverse 2
Interest Rates Stresses⁷ (bps) (shocks expressed respect euro swap rates)		
Maturity 1y	-26	-35
Maturity 2y	-56	-42
Maturity 3y	-67	-30
Maturity 5y	-78	-9
Maturity 7y	-85	0
Maturity 10y	-91	8
Maturity 20y	-97	16
Maturity 30y	-103	15
Equity Stresses		
MSCI Europe	-41%	-21%

Example:
EIOPA Stress Testing 2014

Non-Life Stresses	Adverse 1	Adverse 2
NatCat / ManCat	1-in-100 year event	1-in-200 year event
Provisions deficiency	1,00%	3,00%
Life Stresses	Adverse 1	Adverse 2
Longevity	10,00%	18,00%
Mortality	0.6 additional death	2 additional death
Mass Lapse Stress	Adverse 1	Adverse 2
Mass lapse	20,00%	35,00%

But necessary to prove, whether

- the stresses, scenarios are relevant for the concrete business
- emerging risks and events could break the company
- management actions are “actionable” with regard to the post stress/scenario

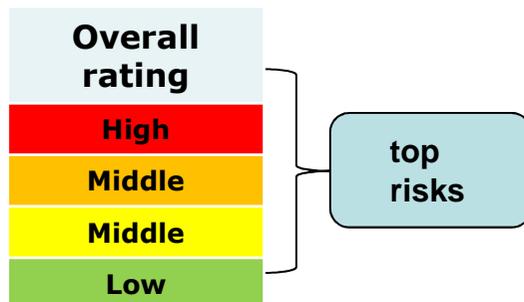




Mapping the risks...

... to an overall rating on basis of impact assessments and entrance probability.

		Impact				
		Very low	Low	Middle	High	Very high
Probability of occurrence within next 5 years	> 50%					
	20%-50%					
	10%-20%					
	5%-10%					
	< 5%					



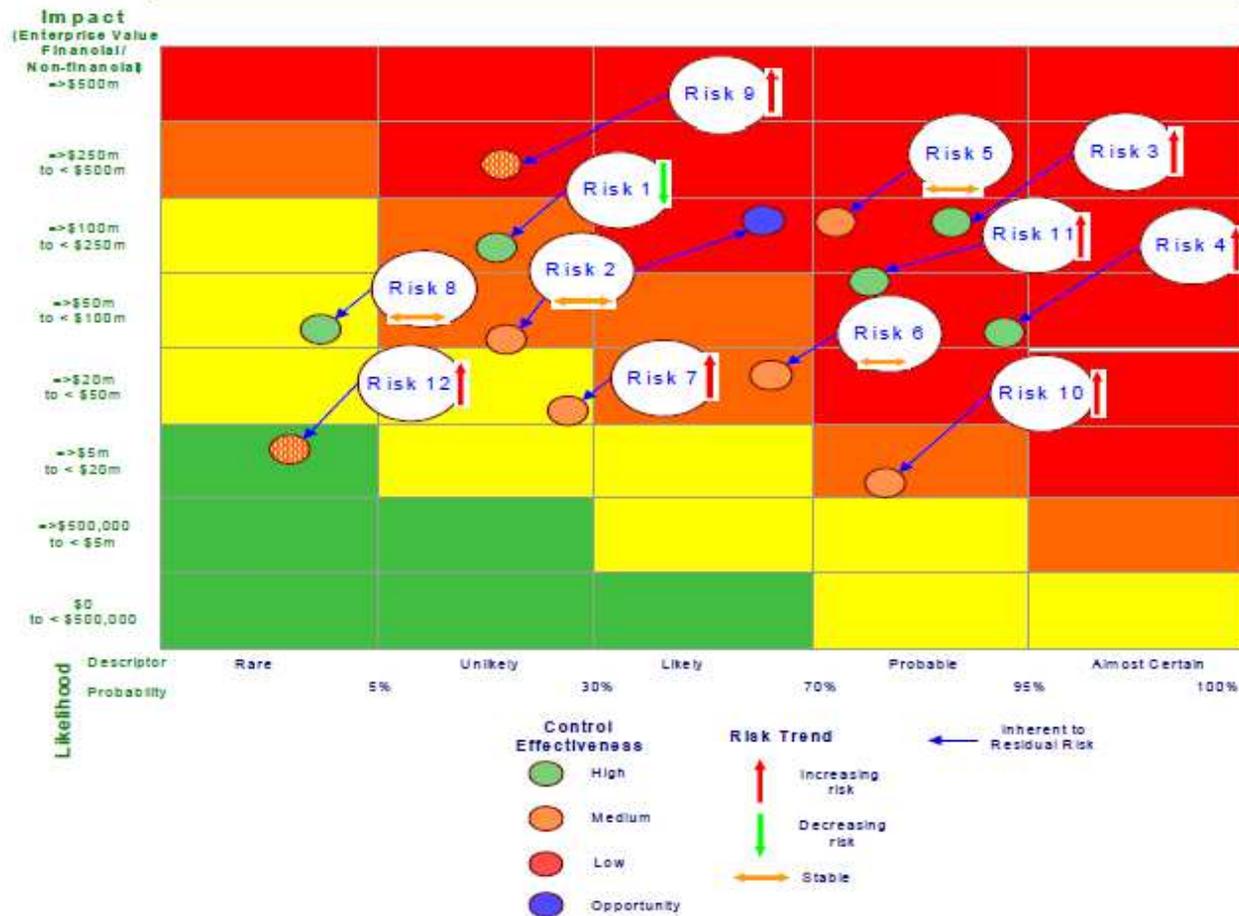
Recommendations:

- Observation of every risk and its particular impact for different probabilities with selecting the worst classification in overall rating.
- (Emerging) Risks with an overall rating in the middle which shows a very low probability should be analysed additionally (“severity effects”)



ORSA – Qualitative Assessment

Illustrative example for qualitative risk classification



Source: EAA seminar „Risk Management“, Frankfurt 2012

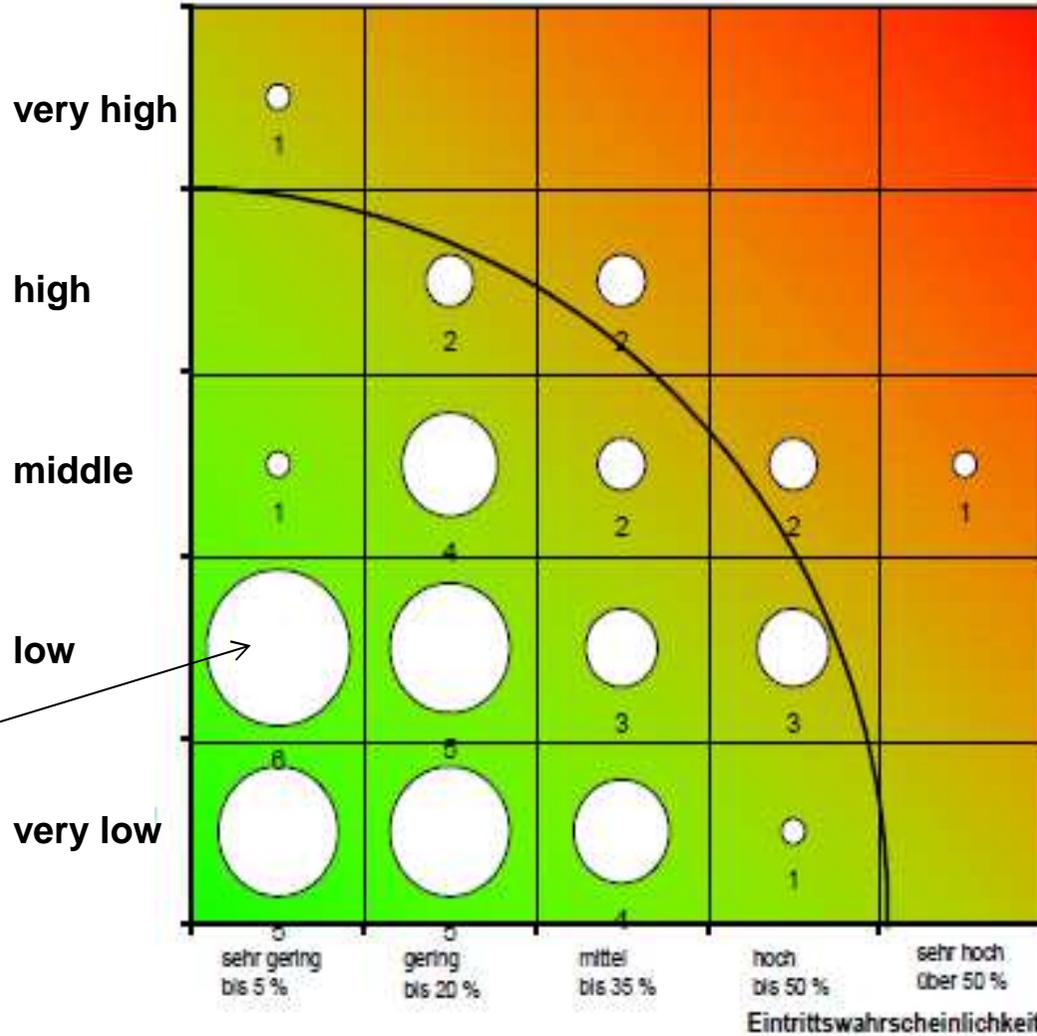


ORSA – Qualitative Assessment

Qualitative risk Identification by clustering

impact

The size of the circles quantifies the volume of the risks





Impact Assessment (example): Use of a scoring system

	Impact rating
81% - 100% of possible total points	Very high
61% - 80% of possible total points	High
41% - 60% of possible total points	Middle
21% - 40% of possible total points	Low
0% - 20% of possible total points	Very low



Illustrative example for qualitative risk classification

Likelihood or estimated frequency classification (example)	Lower Bound	Upper Bound	Mid Point
Rare	> Every 10 yrs	Every 10 Years	20 years
Unlikely	Every 10 Years	Every 5 Years	8 years
Possible	Every 5 Years	Every Year	2 years
Likely	Every Year	Every Month	2 months
Frequent	Every Month	Every Week	2 weeks
Recurrent	Every Week	< Every Week	2 days

Source: EAA seminar „Risk Management“, Frankfurt 2012



Dash board

- Top 10 residual risks
- Key risk indicators
- Scoring chart for risk severity and control effectiveness
- Heatmap of all substantial inherent and residual risks
- An additional commentary section
- Significant project progress





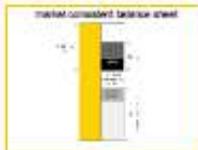
Periodical reported dashboards as management information pack





Guideline 9 – Forward-looking perspective

„The undertaking’s assessment of the overall solvency needs should be forward looking.“(1.24.)



Projection of assets and liabilities

- ▶ Basis for the calculation of the market value balance sheet (IFRS, local accounting) and the assumptions (technical provisions, capital investments, RI-Strategy) for year end forecasts and planning period.



Projection of SCR

- ▶ Modification of past planning parameters change the SCR (e.g. capital investment strategy, product mix, re-insurance strategy, interest-rate assumptions).
- ▶ Internal model or standard formula only with "one year horizon": Multiple calculation or other approximation?



Projection of free surplus

- ▶ Change of capital tiering (e.g. capital measures)
- ▶ Capital planning



Market value balance sheet	2Q 2012	YE 2012	P1 2013	P2 2014	P3 2015
Total assets	7,367.0	7,514.1	7,664.2	7,816.4	7,971.5
Total technical provisions and other liabilities	4,978.6	5,069.9	5,163.1	5,258.2	5,355.1
Total own funds	2,388.4	2,444.2	2,501.1	2,558.2	2,616.4
Stand-alone SCR	2Q 2012	YE 2012	P1 2013	P2 2014	P3 2015
Market risk	593.9	605.6	617.6	629.9	642.3
Credit risk	206.8	206.8	206.8	206.8	206.8
P&C risk	200.0	204.0	208.1	212.2	225.5
Life risk	325.2	331.7	338.4	345.1	386.6
Business risk	72.8	74.2	75.7	77.2	80.5
Operational risk	20.0	20.0	20.4	20.8	21.2
Total stand-alone SCR	1,275.4	1,296.8	1,318.9	1,341.4	1,405.0
Diversified SCR	2Q 2012	YE 2012	P1 2013	P2 2014	P3 2015
Market risk	335.8	342.7	349.8	357.0	354.9
Credit risk	121.4	120.6	119.8	119.0	115.6
P&C risk	61.1	62.3	63.5	64.7	68.7
Life risk	167.0	171.0	175.0	179.1	213.4
Business risk	22.3	22.7	23.1	23.6	25.0
Operational risk	20.0	20.0	20.4	20.8	21.2
Tax	0.0	0.0	0.0	0.0	0.0
Total diversified SCR after tax	654.2	664.7	675.7	686.9	718.2
Solvency ration	2Q 2012	YE 2012	P1 2013	P2 2014	P3 2015
Base case	365%	368%	370%	372%	364%

Pillar 1 requirement

Pillar 2 requirement



Guideline 10 – Regulatory capital requirements

As part of the ORSA the undertaking should ensure that the assessment of compliance on a continuous basis with the regulatory capital requirements includes, at least, an assessment of:

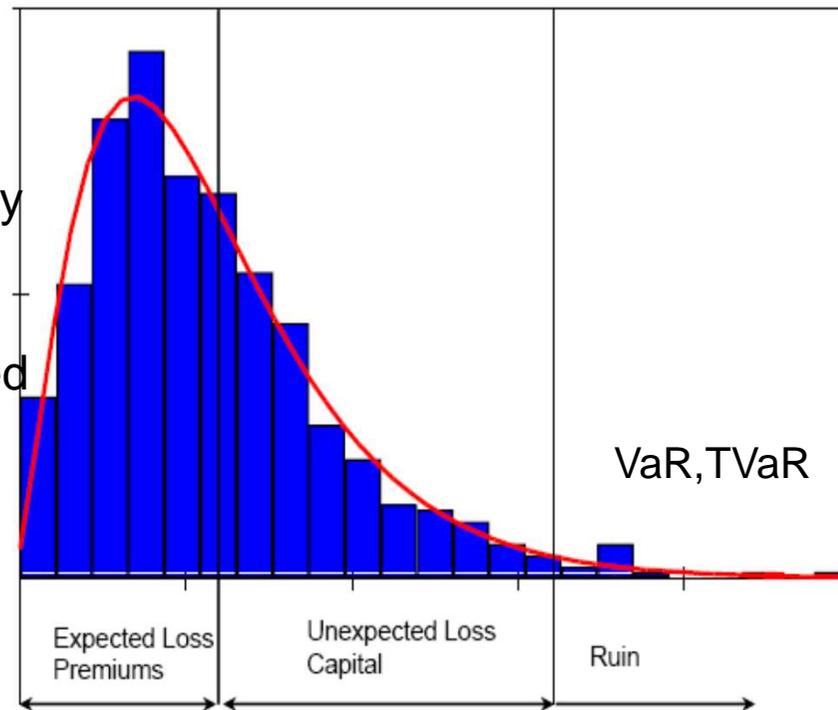
- a) potential future changes in the risk profile and stressed situations;
- b) the quantity and quality of its own funds over the whole of its business planning period; and
- c) the composition of own funds across tiers and how this composition may change as a result of redemption, repayment and maturity dates during the business planning period.



Risk bearing principle:

The financing of risk capital is orientated on the availability of free capital for not expected losses:

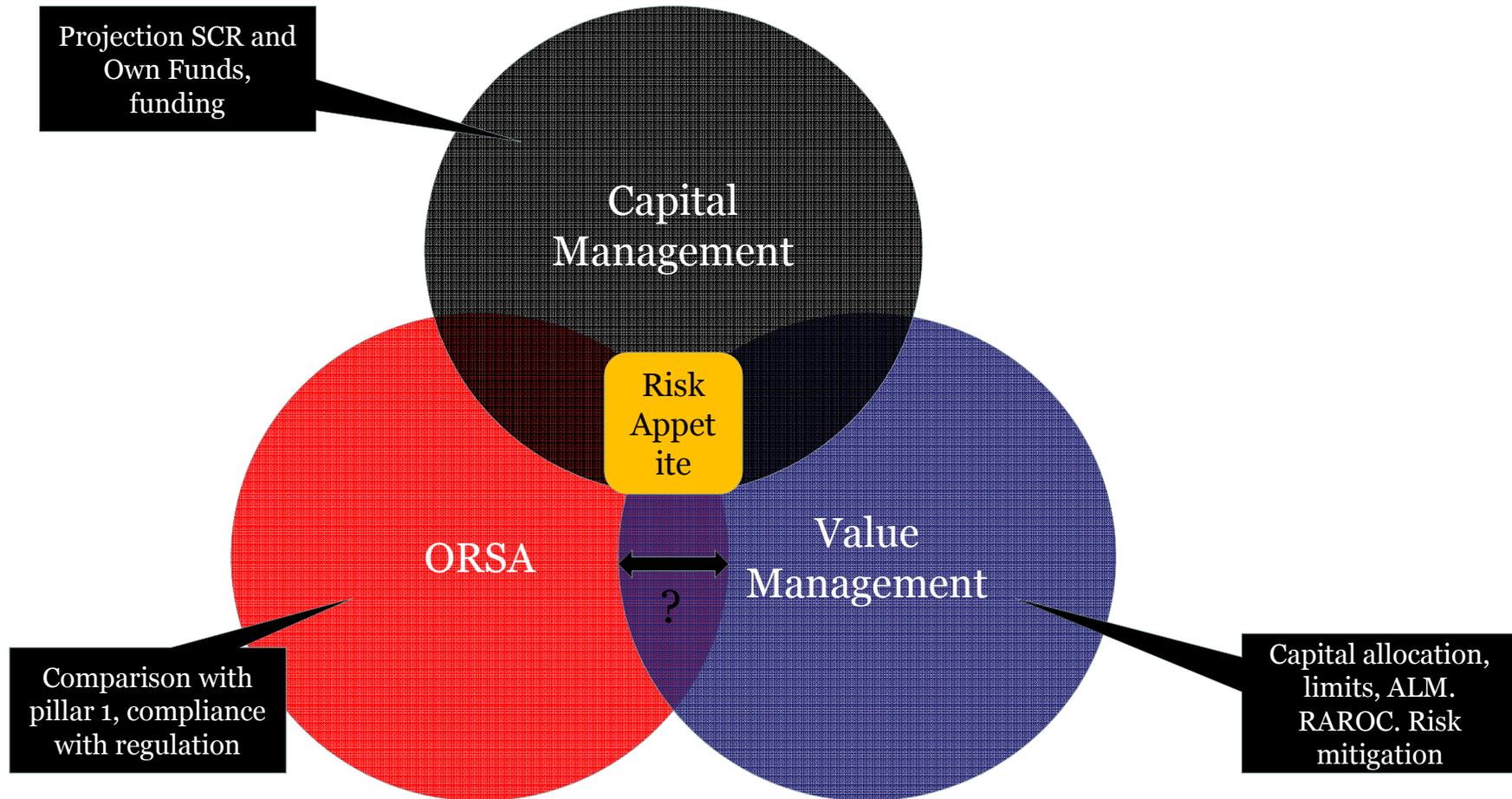
- Expected losses financed by premiums and reserves
- Unexpected losses financed by risk capital (economic capital, Own Funds)





ORSA – Capital Management

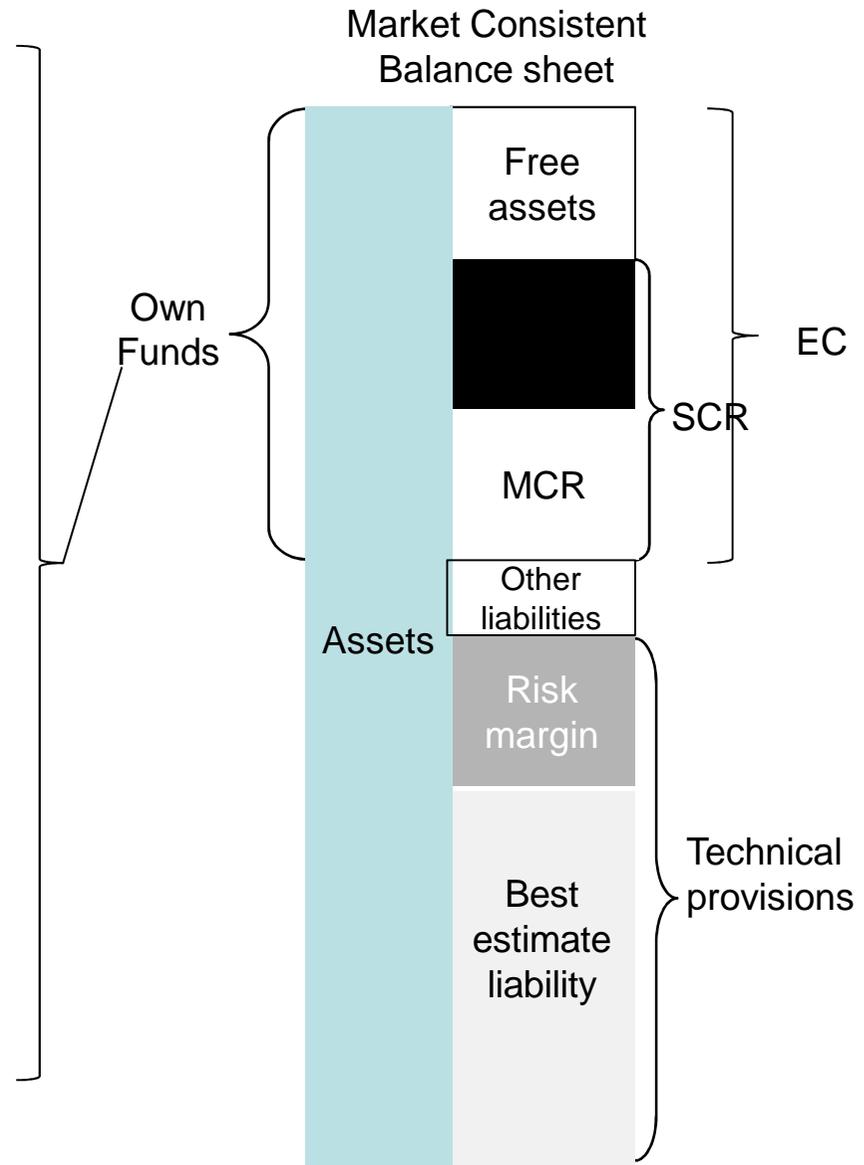
Correlation between ORSA, Capital Management and Value Management





'Own funds' ...

- ...are the capital resources available to act as a buffer against a change in an insurer's financial position due to adverse deviations.
- The minimum level and composition of own funds is determined by reference to its Solvency Capital Requirements
- The determination of the amounts of own funds eligible to cover the capital requirements are based on a three step process:
 - Determination of (available) own funds
 - Tiering classification of own funds
 - Eligibility of own funds

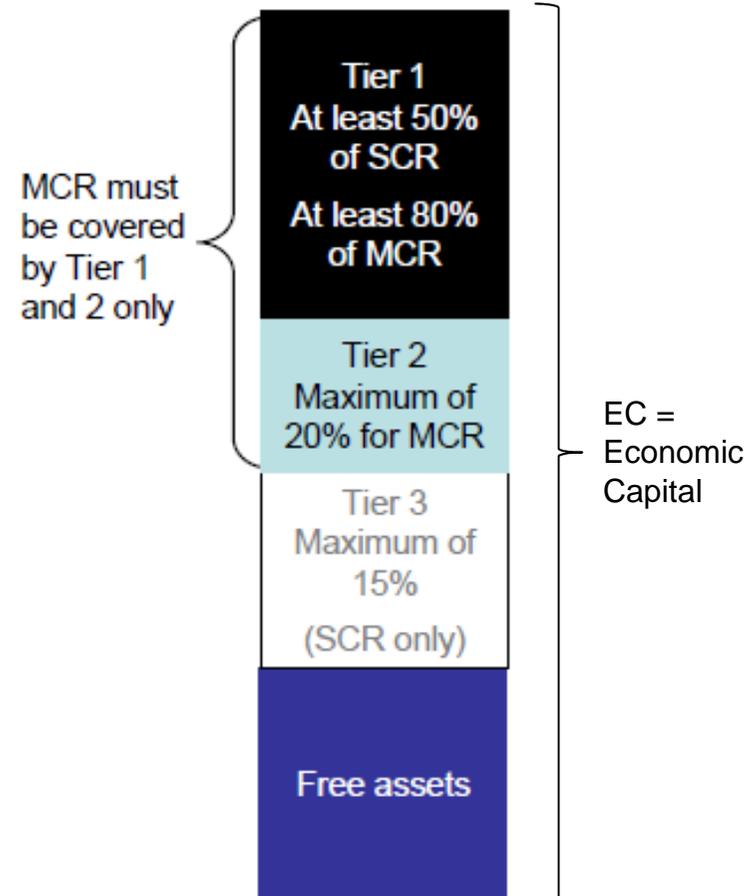




Structure of Own Funds

- Tier 2 and Tier 3 items as well as certain Tier 1 items are subject to quantitative limits:
 - Tier 1 \geq 50% of SCR.
 - Tier 3 \leq 15% of SCR.
 - Tier 1 basic own funds \geq 80% of MCR.
 - Tier 1 and Tier 2 basic own funds \geq 100% of MCR.

- There is a further, specific requirement set out in article 72 EOF which restricts the inclusion of certain items of Tier 1 to 20% of the total Tier 1.





Structure of Own Funds

Note that some items appear across more than one tier. The eligibility criteria then need to be consulted to determine where a particular instrument should appear.

Tier 1	Tier 2	Tier 3
<p>Basic own funds Excess of assets over liabilities comprising:</p> <ul style="list-style-type: none"> ▶ Paid in ordinary share capital ▶ Paid-in initial funds, members' contributions or equivalent BOF items for mutual and mutual-type undertakings ▶ Share premium account ▶ Paid in subordinated mutual member funds <ul style="list-style-type: none"> ▶ Surplus funds falling under Article 91 (2) ▶ Paid in preference shares ▶ Reconciliation reserve ▶ Subordinated liabilities valued in accordance with Article 75 of Level 1 directive ▶ EPIFP (Expected profit in future premiums) <p>Reduced by:</p> <ul style="list-style-type: none"> ▶ Reserves the use of which is restricted ▶ Participations held in financial and credit institutions (now capped at maximum of 10%) ▶ Ring fenced funds 	<p>Basic own funds Excess of assets over liabilities comprising:</p> <ul style="list-style-type: none"> ▶ Ordinary share capital ▶ Other paid-in capital instruments (that do not have features required for Tier 1 but meet Tier 2 criteria) including: <ul style="list-style-type: none"> ▶ Initial funds, members' contributions or equivalent BOF items for mutual and mutual-type undertakings ▶ Share premium account ▶ Preference shares ▶ Subordinated liabilities ▶ Subordinated mutual member accounts <p>Ancillary own funds Comprise , for example, the following to the extent are not basic own-fund items:</p> <ul style="list-style-type: none"> ▶ Unpaid and uncalled share capital or preference shares callable on demand ▶ Letters of credit or guarantee (subject to certain restrictions) ▶ Any other legally binding commitments received 	<p>Basic own funds Excess of assets over liabilities comprising:</p> <ul style="list-style-type: none"> ▶ Deferred tax assets ▶ Other capital instruments (that do not have features required for Tier 2 but meet Tier 3 criteria) including: <ul style="list-style-type: none"> Preference shares <ul style="list-style-type: none"> ▶ Share premium account ▶ Subordinated liabilities ▶ Subordinated mutual member accounts <p>Ancillary own funds No specific list</p>

*) ACCORDING TO SOLVENCY II LEVEL 2 DRAFT IMPLEMENTING MEASURES, DATED 31ST OF OCTOBER 2011



Therefore: Capital planning...

- ... includes projections of capital requirements and own funds over the planning period (and may include the need to raise new own funds).
- ... should ensure that the ORSA includes processes and procedures in order to allow the company to monitor and manage the quality and loss absorbing capacity of its own funds over the whole of its business planning period.
- ... will affect the MCR and the SCR if there are changes in the company's risk profile and therefore need to be reflected in the capital management process and the structure of Own Funds.



When considering future own fund requirements the company has to consider:

- Capital management including, at least issuance or repayment of capital instruments, dividends and other distributions of income or capital, or calls on ancillary own fund items. This has to include both **projected changes** and **contingency plans** in the result of a **stressed situation**.
- The interaction between the capital management and its risk profile and its expected and stressed evolution.
- If required, its **ability to raise own funds of an appropriate quality and in an appropriate timescale**. This has to have regard to: its own access to capital markets; the state of the markets; its dependence on a particular investor base, investors or other members of its group; and the impact of other undertakings seeking to raise own funds at the same time.
- How the **average duration of own fund items** (contractual, maturity or call dates), relates to the **average duration of its insurance liabilities and future own funds** needs.
- The **methods and main assumptions used to calculate net cash flows** resulting from the inclusion in technical provisions of premiums on existing business that are expected to be received in the future (EPIFP); and how it might respond to any changes in basic own funds resulting from changes in those cash flow expectations.



Guideline 12– Deviations from assumptions

“The undertaking may initially assess deviations between its risk profile and the assumptions underlying the SCR calculation on a qualitative basis. If this assessment indicates that the undertaking’s risk profile deviates materially from the assumptions underlying the SCR calculation the undertaking should quantify the significance of the deviations.” (1.27.)



Various activities that might be taken in order to assess standard formula suitability:

<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center; background-color: yellow;">Basic Approach</p> <p style="text-align: center; background-color: yellow;">Internal model</p> <p style="text-align: center;">complete partial</p> </div>	<p>Analyses of risk profile</p>	<ul style="list-style-type: none"> ▶ Which risks are material risks? → Creating a „Risk Ranking“ ▶ Are all of the risks covered in standard formula? → Default risk of government bonds ▶ Are there any special characteristics of the business model? → e.g. Products like pharmaceutical liability ▶ Is the net risk profile (after reinsurance) correctly considered in the SF? → Stop Loss ▶ Are all products covered appropriately, e.g. investments in funds?
	<p>Back-Testing</p>	<ul style="list-style-type: none"> ▶ Are the assumed correlations in line with the companies history? ▶ How do the results of the standard formula match with past events? → Using data history ▶ Appropriate consideration of reinsurance for past events?
	<p>Calibration of SF</p>	<ul style="list-style-type: none"> ▶ Is the standard formula calibration named in EIOPA papers consistent with the own company? → e.g. real estate shock based on UK data calibration
	<p>Assessment of SF parameters</p>	<ul style="list-style-type: none"> ▶ Do the volatilities of premium and reserve risk factors match with volatility factors based on own portfolio?
	<p>Stress & Scenario tests</p>	<ul style="list-style-type: none"> ▶ How could results of standard formula stress- and scenario tests be compared with realized reserve stress tests ? → Are all LoBs covered by the SF?
	<p>Simplification</p>	<ul style="list-style-type: none"> ▶ Are applications of SF simplifications possible, e.g. “risk mitigation”? If so, why are they appropriate? ▶ In case of using a proportionality argument the existence of a materiality concept is necessary.



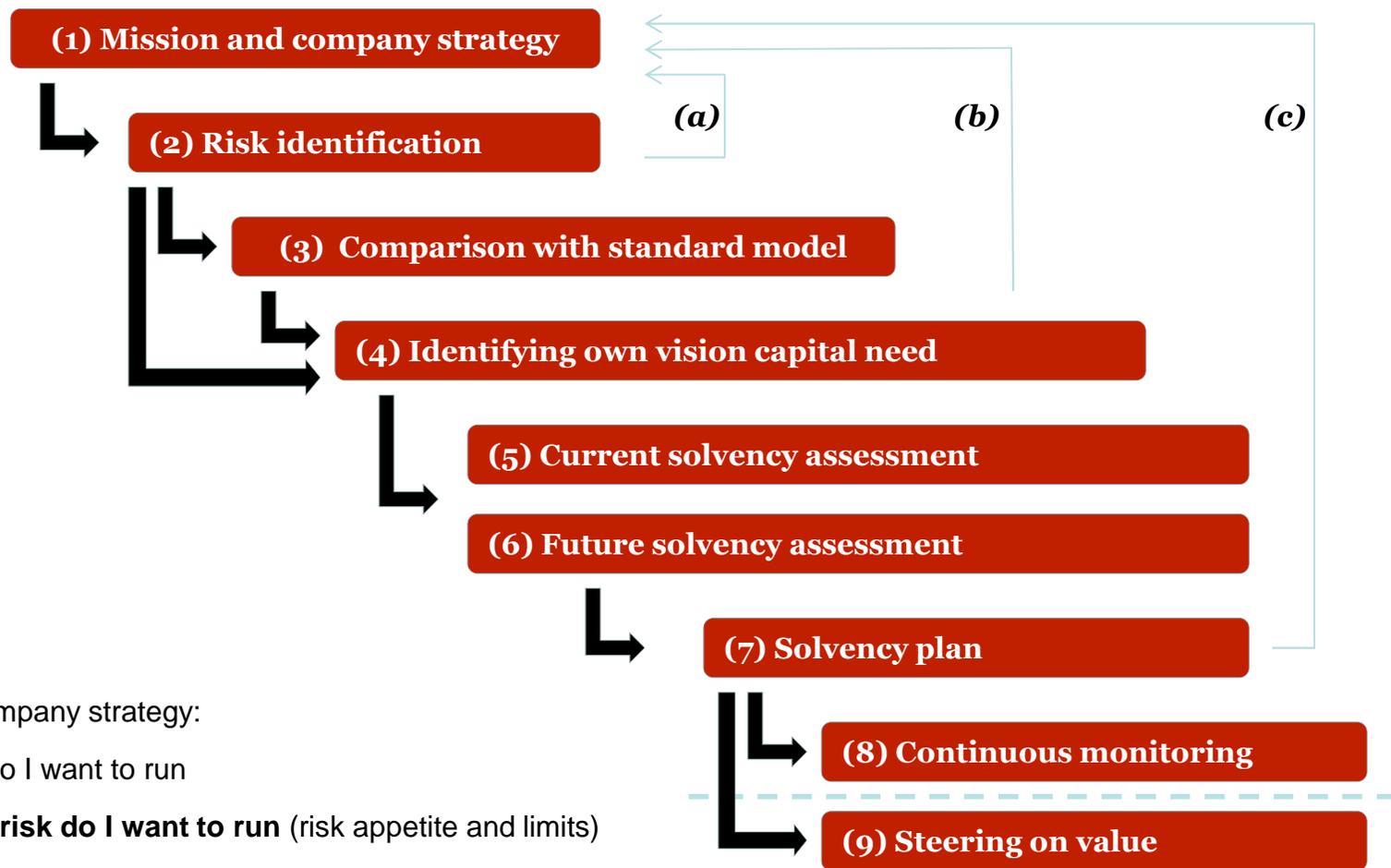
Guideline 11 – Technical provisions

As part of the ORSA the undertaking should ensure that the actuarial function provides input concerning the continuous compliance with the requirements regarding the calculation of technical provisions and the risks arising from this calculation.

Comment by EIOPA:

Assessing whether the requirements relating to technical provisions are being complied with continuously requires processes and procedures relating to a regular review of the calculation of the technical provisions to be in place.

The input regarding the compliance with requirements and risks arising from the calculation of technical provisions has to be in line with the information contained in the annual report of the actuarial function.



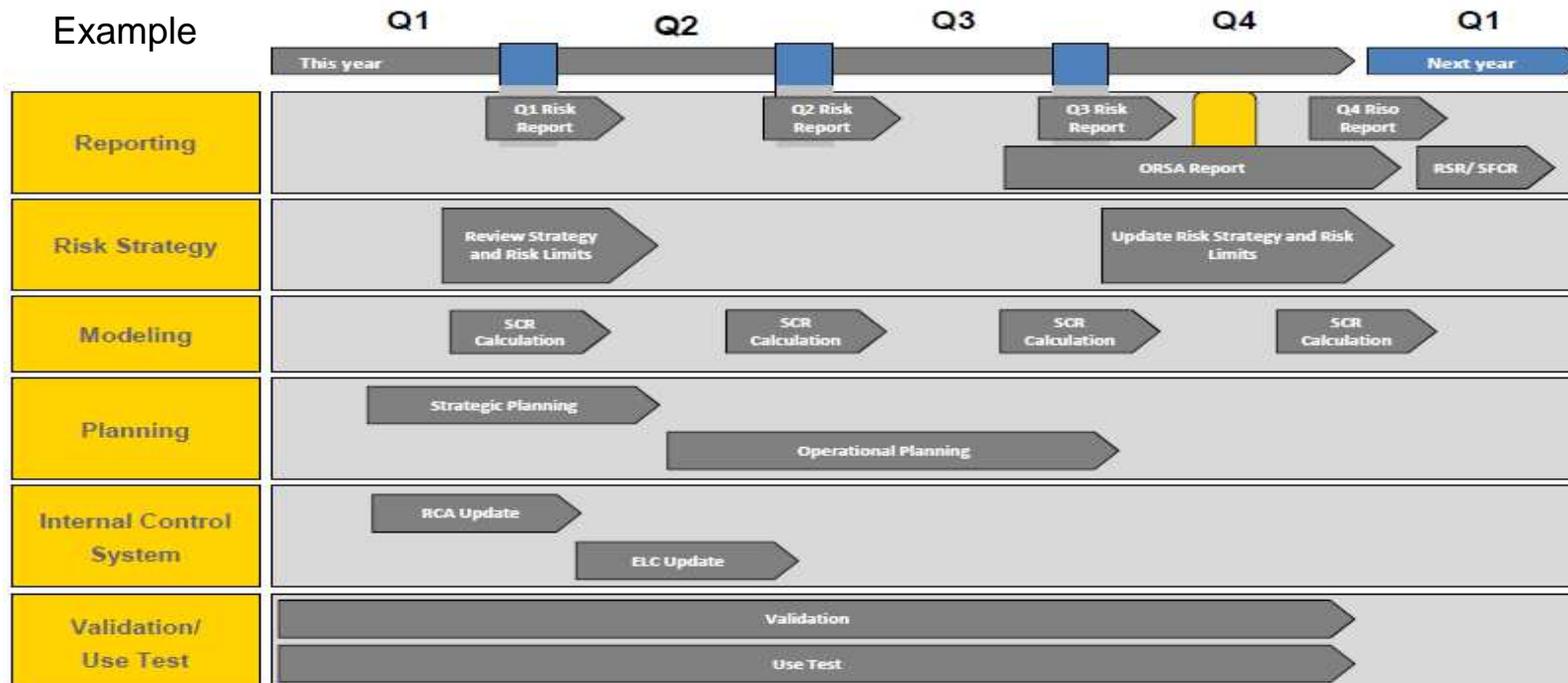
To include in company strategy:

- (a) **What risk** do I want to run
- (b) **How much risk do I want to run** (risk appetite and limits)
- (c) **Financing** risk (own funds amount and construction)



Guideline 14 – Frequency of the ORSA

„The undertaking should perform the ORSA at least annually. Notwithstanding this, the undertaking has to establish the frequency of the assessment itself particularly taking into account its risk profile and the volatility of its overall solvency needs relative to its capital position. The undertaking should justify the adequacy of the frequency of the assessment.“





Guideline 5 – General rule

1.18. The ORSA and its outcome should be appropriately evidenced and internally documented.

Guideline 6 – Internal report on ORSA

1.19. Once the process and the result of the ORSA have been approved by the administrative, management or supervisory body, at least information on the results and conclusions regarding the ORSA should be communicated to all staff to whom the information is relevant.

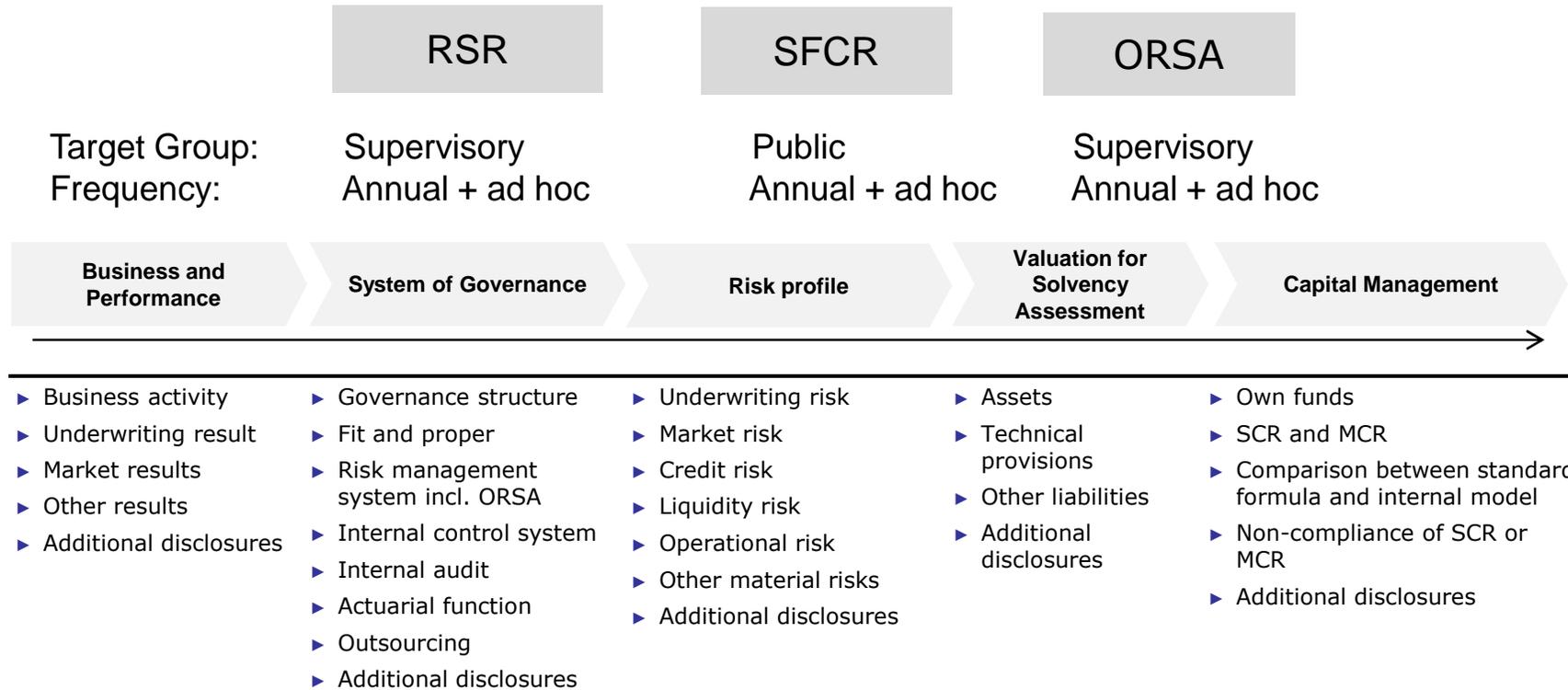


ORSA – Documentation and Reporting

Guideline 3 – Documentation

„The undertaking should have in place at least the following documentation on the ORSA:...c) internal report on ORSA; and d) ORSA supervisory report.“

Design of RSR (= Regular Supervisory Reporting) and SFCR (= Solvency Financial Condition Report)





ORSA – Documentation and Reporting

	SFCR		RSR				ORSA
	Narrative qualitative and quantitative report	QRTs*	Narrative qualitative and quantitative report		QRTs*		ORSA supervisory report
			Summary	Complete report	Annual	Quarterly	
Preparatory phase (2015)	Narrative report (incl. selected QRTs)					Selected sections of future ORSA report	
First submission	Narrative Report in 2015 (as at 31.12.2014); thereafter reports have to be submitted in 2017 (as at 31.12.2016)						
Frequency of reporting	Annual	Annual	Annual	Every 3 years	Annual	Quarterly	At least annual Ad-hoc in case of changes of risk profile
Deadline for Solo reporting (relevant from 1.1.2016, 22 weeks in preparatory phase, dependent on national regulator)							
First year:	20 weeks	20 weeks		20 weeks	20 w.	8 w.	Two weeks after completion of internal process
Second year:	18 weeks	18 weeks	18 weeks		18 w.	7 w.	
Third year:	16 weeks	16 weeks	16 weeks		16 w.	6 w.	
Later:	14 weeks	14 weeks	14 weeks	14 weeks	14 w.	5 w.	
Deadline for group submission							
Option 1:	Group-SFCR: + 6 weeks		Group-RSR: + 6 weeks				
Option 2:	Single Group SFCR: see Solo		Only 1 Option!				

*Shorter deadlines for submission of certain QRT data relevant for financial stability



Own Risk and Solvency Assessment [on 31.12.20XX]

Content

1. Summary
2. Methods and assumptions
 - 2.1. ORSA process, responsibilities and integration into the overall risk management
 - 2.2. Use of quantitative models and assessment of model weaknesses
 - 2.3. Stress-and scenario tests
 - 2.4. Qualitative risk –identification–and risk management process
 - 2.5. Integration into (capital-) planning and control processes
3. ORSA Results on cutoff date YTD20XX
 - 3.1. Capital-and solvency position YTD 20XX
 - 3.2. Stress- scenario tests and risk concentrations
 - 3.3. Analyses of changes and comparison to risk appetite and risk limits
 - 3.4. Results from qualitative risk identification- and risk management processes
 - 3.5. Comparison to regulatory risk capital and commentary on quantitative model weaknesses- and strength
 - 3.6. Explanation of strengths and weaknesses of the governance system
 - 3.7. Other results from the non-insurance business
4. Medium-term planning perspective (e.g. over 3 years)
 - 4.1. Projection results of own funds and risk capital
 - 4.2. Projections under stress conditions
 - 4.3. Quality, volatility and availability of own funds
 - 4.4. Capital planning
5. Conclusion and impact on business steering



- Central focus of ORSA is the forecasting of the solvency situation (capital needs versus own funds) in order to identify potential risks and to react in a suitable way (adaptation of risk policy, update on limits, structure of own funds etc.)
- It is required to compare the actual risk profile with the assumptions that are made for the SCR calculation
- It is necessary to test the sensitivity of the risk profile by stress/scenario testing
- The company has to report the results having found in the ORSA to the regulator as well to the public as part of the solvency reporting.



Thank you for your attention !

Prof. Dr. Martin Balleer
Georg-August-Universität Göttingen
Germany
martin.balleer@actuarial-academy.com