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ERM Basics: Risk Appetite and ORSA

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Agenda

1. Key concept: Economic Capital
2. Risk Appetite
3. The Own Risk and Solvency Assessment

Key Concept: Economic Capital

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Economic Capital

- The Standard Formula intends to capture the risk of an *average insurer* in the market and it reflects the **regulatory view** of the how to measure the risk
  - **Solvency Capital Requirement (SCR):** Based on a **defined set of risks, required shocks per risk** and a **prescribed structure to aggregate the risks**
  - **Own Funds:** Based on rules for what types of capital can be considered eligible to cover the SCR
- However, **no insurer's true risk profile will ever represent the average**
  - There might be *other specific risk types* that are material to the insurer that aren't captured in the Standard Formula
  - There might be assumptions underlying the SCR calculation that does not hold for the insurer
  - The shocks required for the SCR calculation might not be appropriate for the insurer's specific business
  - The assumptions underlying the aggregation of the risks might be different to what the regulator prescribes
- Economic capital captures the **true risk exposure** of an insurer **across all risks** and it reflects the **insurer's view** of how to **measure** the risk
- It gives an indication of the **quantum of the potential losses** an insurer may suffer **across a range of risks** with a **specified confidence level** and **over a certain period** of time

Economic Solvency at Risk

- **Economic**: size of shock depends on actual portfolio experience
- **Economic mortality risk shock**: historic analysis of AvE, fit [AvE-100%] to a normal distribution at desired confidence level
- **Solvency at Risk**: change in solvency ratio due to increase in expected claims / mortality risk

Portfolio A				
Year	**Actual Deaths**	**Exp Deaths**	**AvE Deaths**	**AvE vs 100%**
2023	543	612	89%	-11%
2022	456	443	103%	3%
2021	600	452	133%	33%
2020	500	400	125%	25%
2019	380	410	93%	-7%
Annual stdev of AvE vs 100%		20%	Shock at 99.5%	50%

Portfolio B				
Year	Actual Deaths	Exp Deaths	AvE Deaths	AvE vs 100%
2023	543	550	99%	-1%
2022	456	443	103%	3%
2021	420	430	98%	-2%
2020	500	490	102%	2%
2019	380	400	95%	-5%
Annual stdev of AvE vs 100%		3%	Shock at 99.5%	8%

Regulatory Capital vs Economic Capital vs Internal Models

Regulatory Capital Model

- Used for **regulatory** reporting
- Model is aligned to prescribed **requirements specified by regulator**
- In Europe **Solvency II Standard Model** specified under the Directives issued by CEIOPS, adopted by translating the directive into national law
- In South Africa **Solvency Assessment and Management** requirements specified in the **Financial Soundness for Insurers (FSIs)**

What can Economic capital tell us?

- On an **aggregate** it is the **potential losses** that the insurer may suffer **within a time period** with a certain **confidence level** across **all the risks** it is exposed to
- **On a risk type level**, it is the potential loss that the insurer may suffer within a time period with a certain level of confidence **from that risk**

Risk Appetite

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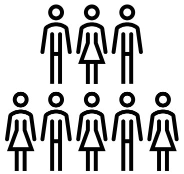
Risk Appetite

- Defines the **level and type of risk** an organization is **willing to accept** in pursuit of its strategic objectives – it forms a critical element of an insurer's risk management strategy
- At a minimum (as per GOI 3), risk appetite statements must clearly identify:
  - **Overall level of risk** the insurer is prepared to accept
  - For **each material risk**, the **maximum level** of risk insurer is willing to operate in
- Risk Appetite statements can be **quantitative or qualitative**, and retrospective or forward-looking
- Examples Qualitative risk appetite statements
  - Zero tolerance for non compliance with regulation or accounting standards
  - Low tolerance for reputational events
- Can be considered **from a number of stakeholder perspectives**
  - Shareholders'
  - Policyholders
  - Regulators and Rating agencies
  - Bond and debt holders



Quantitative Risk Appetite Statements

Retrospective risk appetite statements

- Analyses past decisions, performance, and outcomes – uses historical data
- Helps understand adherence to the stated risk appetite based on how much risk taken
- Enables identifying areas for improvement in the risk management framework

Examples of Quantitative Risk Appetite Statements

	Retrospective	Forward-Looking
Risk Specific	• In the event of an **instantaneous accidental death** Cat event, we do not want to suffer cumulative losses in excess of R100mn • **NTUs** should not go above 20% for any period	• **Earnings at risk for interest rate risk** should not exceed 10% of expected earnings • When pricing a new product, **VNB at risk for lapse risk** should not exceed 20%
Overall	• **Actual earnings** should not differ more than 5% of planned earnings • The **Solvency position** should not fall below 1.5x cover • **Economic capital** coverage ratio >= 120%	• **Prospective Return on Capital** >= 20% on any product portfolio • **Sensitivity of the solvency position** <=20%-p for any of the key sensitivities

Own Risk and Solvency Assessment (ORSA)

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Objectives of the ORSA according to the GOIs

Objectives of the ORSA is to assess	
	the **overall solvency needs** taking into account the specific risk profile, approved risk appetite and business strategy over a longer time frame than conventional risk assessments
	compliance, on a **continuous basis**, with financial soundness requirements
	the **resilience** of the solvency across a range of possible scenarios
	the significance with which the **risk profile deviates from the risk profile implied** by the solvency requirements

Key Elements of the ORSA

- Embed ERM into strategic decision making
- Assess quantity / quality of capital needed over business planning period
- Determine the sustainability of business strategy across a range of scenarios and adapt business strategy if no feasible management actions to recover

- Assess continuous compliance with regulatory solvency capital requirements
- Considered over an appropriate time horizon
- Define appropriate scenarios and their impacts
- Determine management actions that can be implemented in scenarios

- Consider all reasonably foreseeable risks: current risks, emerging risks, short- and long-term risks
- Assesses on effectiveness of governance, internal controls and risk management framework in deriving scenarios and impacts
- Compare projected risk profile vs target risk profile over time
- Assess and address differences between the SCR implied risk and the economic risk

Why do we need the ORSA?

The Board and the regulator wants to know that…

- ***all risks*** have been assessed by management,
- that these are ***taken into account in setting business strategy***, and
- the available ***capital resources are sufficient***, given the risks and the business strategy pursued

Scope of Regulatory Requirements for the ORSA

ORSA Governance

- ORSA compliance and assurance

ORSA Process

- Clarity on the process ORSA followed
- Definition of roles and responsibilities pertaining to the ORSA process

ORSA Policy

- Adopt and fomalise requirements for the ORSA within the organisation

ORSA Projections

- At a minimum available and required capital has to be projected

ORSA Scenarios

- Consider a range of adverse scenarios
- Assess impact of available and required capital under the scenarios

Embedding the ORSA

- Use of the ORSA in practice
- Consideration of risk and capital in business strategy and decisions

ORSA Record

- Information that should be maintained for each ORSA process / report
- Enables review and gives credibility to ORSA outcomes

ORSA Report

- Required content and regulatory submission
- Any regulatory exemptions, e.g. only Group Reporting

Control function involvement

- Risk and Actuarial Control Function involvement

ORSA Policy Requirements (GOI 3.1)

- Description of **processes and procedures** to conduct the ORSA
- Explain how **forward-looking perspective** is addressed and a justification for the **time frame**
- **Link** between risk profile, approved risk limits and overall solvency needs
- How and how often **stress / scenario tests** are to be performed
- **Data quality** requirements
- **Frequency & timing** of the **regular ORSA** and triggers for an **out-of-cycle ORSA**
- Areas subject to **independent review** and frequency of these

In addition, the policy must ensure that:

- The Board of Directors, Senior Management, the Risk Management and Actuarial Functions are appropriately engaged in the ORSA process
- The results of each ORSA are communicated to the relevant staff
- The results of the ORSA are properly embedded in the capital management processes

ORSA Process Planning

Business planning

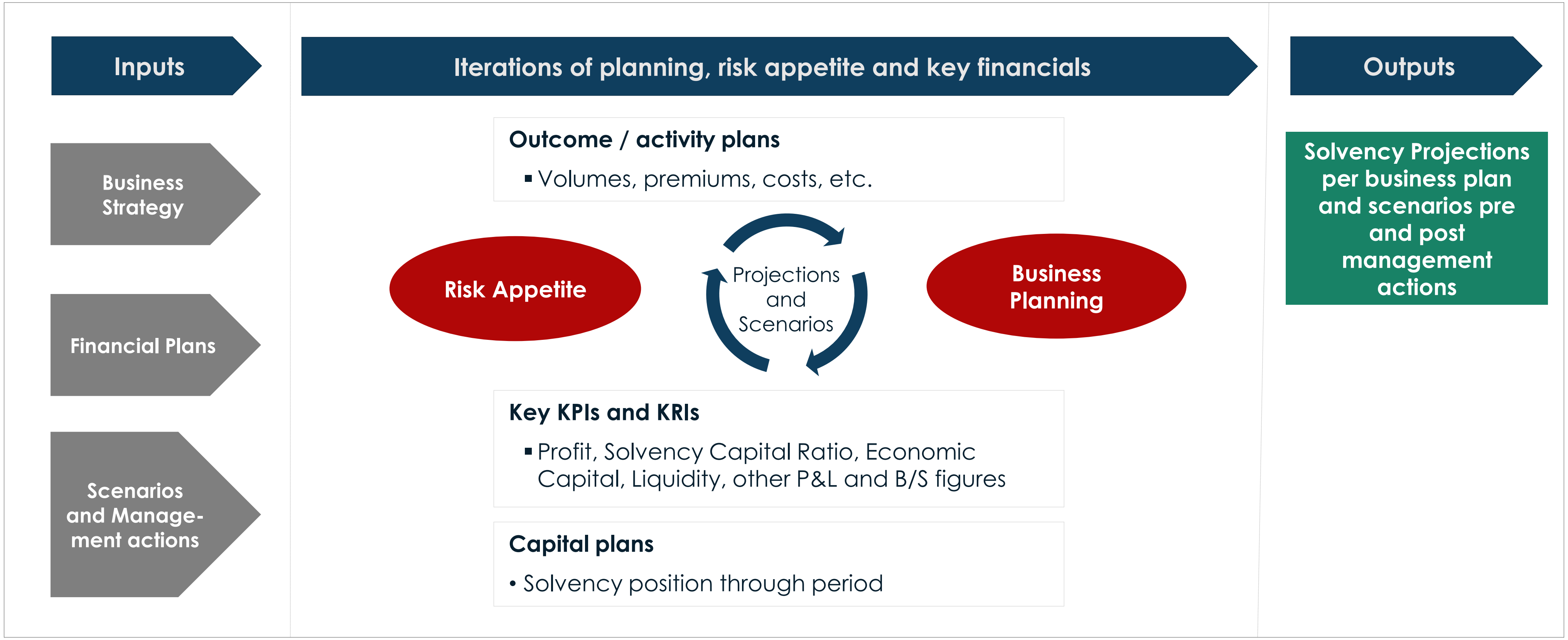
- Setting of new business targets
- Setting of investment strategy and expected returns
- Assumption regarding new business profitability
- Consideration of costs and distribution strategy
- Projected Balance Sheet and Income Statement

ORSA projections

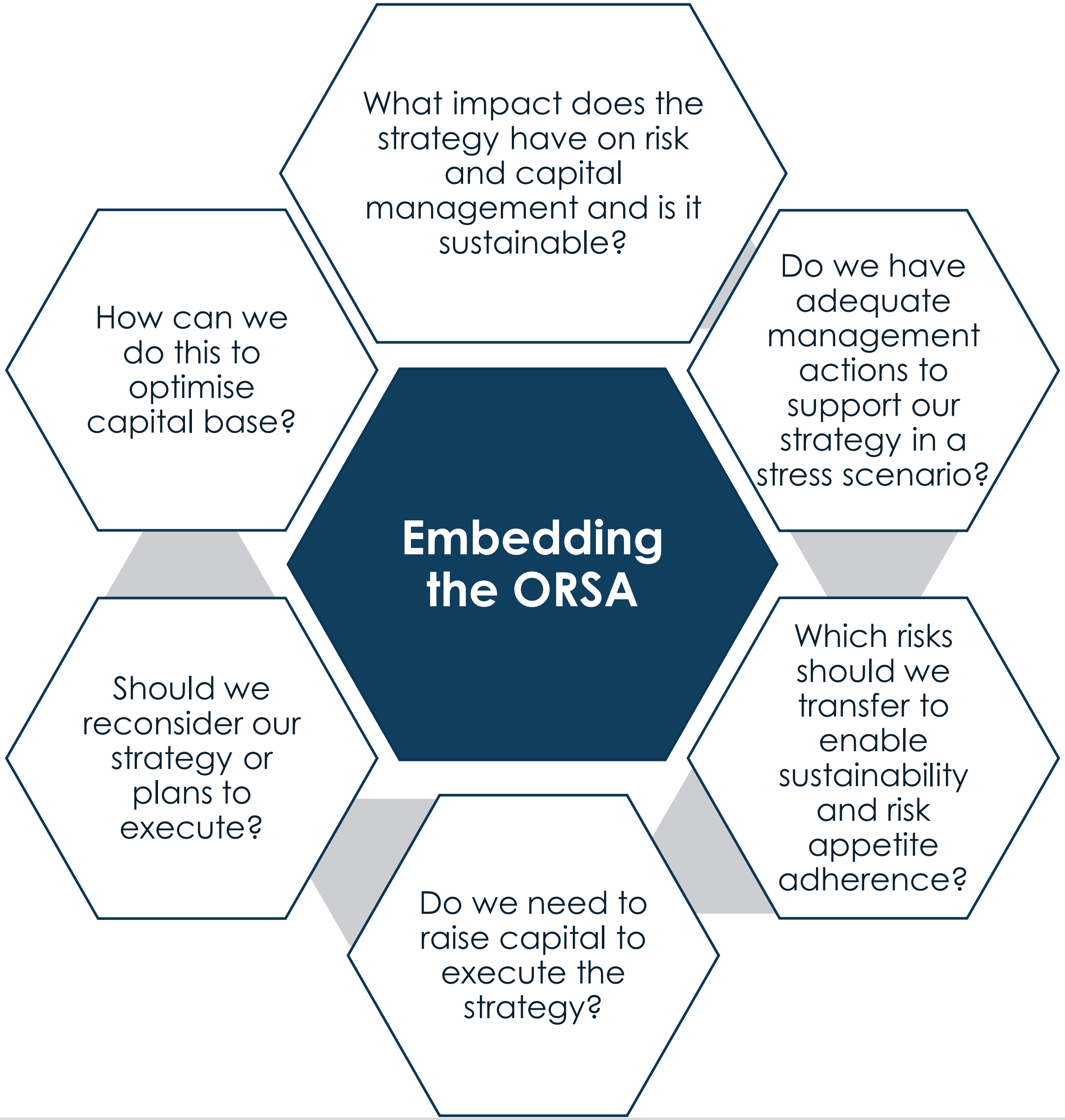
- Projection of solvency requirements across planning horizon using B/S and I/S projections
- Definition of scenarios and management actions incl. all assumed impacts
- Projection of other KPIs and KRIs in the base case and scenarios can be useful
- Projection of solvency, KPIs and KRIs under scenarios, potentially reverse stress testing

The ORSA Process

Various scenarios will be considered in the ORSA and related capital, solvency and profitable outputs will be important inputs to inform strategic decisions



How to embed the ORSA



Evidence required by the regulator:
You will need to demonstrate that the ORSA is used in strategic decision making and management actions are derived for the ORSA outputs

How Active Capital Management could work

Passive Capital Management

- **Capital required** is an **outcome** of business planning rather than an input
- Selling **new business** or **growing/shrinking** certain areas of the business is **passive** rather than proactive
- Particularly relevant for long term business, where improvement actions are limited once the product has been sold

ORSA Governance

The entire ORSA process needs to be well governed. This can be achieved by having a detailed ORSA policy in place and addressing the following questions.

Who needs to contribute what and at which point in time?	Which controls / levels of assurance are in place for the various components that are contributed?	Who needs to formally sign off which parts?
Who ensures the ORSA record is complete and up to date?	How do we ensure the key assumptions in the projections are consistent and transparent?	What is the process to determine stresses and scenarios? Who parametrises them? Who signs off on this?
How are management actions determined? Does the Board sign off on these?	How do we deal with review findings?	Who prepares the ORSA report and ensures regulatory compliance?

ORSA Record

- Essentially a folder containing all inputs into a particular ORSA process and report
- Should enable review without unreasonable effort by a third party
- Must be complete and accurate, including clear audit trails for inputs, assumptions and governance

What are the inputs to the ORSA report?

Own Risk & Solvency Assessment (ORSA)

Business Planning	Balance sheet and income statement projections, other inputs e.g. business volumes
Business Context	Description of legal and organisational structure, core business activities, business environment, and link to risk appetite
Risk Strategy and Appetite	Description of how risk management strategy supports business, risk appetite statements, current and targeted risk profile
Continuous Financial Soundness	Projected solvency required capital and available capital across the 3-5 year planning horizon
Overall Solvency Needs	Capital required to sustain solvency requirements, any capital buffers and targeted solvency over the planning horizon
Stress and Scenario testing	Solvency position under instantaneous stresses and projected solvency required capital and available capital under adverse scenarios including management actions
Risk Profile deviation	Description of firm's assessment of the deviation of its true risk profile from the risk profile implied by the Standard Formula, incl. expected changes in the risk profile
ORSA Process	Description of ORSA governance process and challenge/approvals, including any changes to ORSA from previous period
Governance & Risk Management	Description of risk governance, policies and process for identifying, assessing, and controlling current risks and emerging risk
Planned vs Actual Outcomes	Comparison of the actual vs planned outcomes during period, incl. solvency and planned capital management actions
Capital Usage	A breakdown of capital usage over the planning horizon, as relevant, by material business activity, group entities, geographic exposures and risk types
Embedded-ness of ORSA	Description of how risk and capital management is incorporated into business decisions and strategy
Independent Review	Overview of independent reviews performed, including review feedback and what has been addressed

Finance / Actuarial led

Risk led

Internal audit / external

ORSA components are wide ranging and arise from various sources.

Attributes of a Value-adding ORSA Report

A value adding ORSA report has the following key attributes:

Coherence

- Report tells a consistent and coherent 'story'
- Qualitative/ top risks and quantitative risks are equally considered in scenarios
- Strategic risks, business and economic environment are also considered in the scenarios
- Management actions are well thought through and specific to each scenario

Focused and Structured

- Indicates key messages with sufficient detail to substantiate
- Easy to navigate – distinguishes between static components and dynamic components
- Executive summary covers each of the main sections in adequate depth
- Meets needs of external and internal stakeholders, including independent reviewer

Clarifies the Process

- Clearly describes the key processes followed to compile the ORSA and key responsible parties
- Indicates quality assurance (e.g. on data) and governance around the ORSA process

General Challenges with the ORSA

Embedding the ORSA process and demonstrating this by using the results to feed into strategy and planning	Regarding the ORSA as a tick box exercise and focussing on compliance rather than business value	No proper assessment of the difference in the true risk profile and the SF implied risk profile, and responding to that	Too generic in some areas e.g. management actions
Report focussed rather than on its process	Lack of clear ownership of the different components	Weak ORSA record and process documentation that links to reported figures	Not covering actual-versus-planned capital management actions
Creating a clear link between the business strategy, the risks identified and the scenarios / stress testing	Identifying and assessing risks rising from intra-insurance group transactions	Buy-in into management actions by the Board	Weak scenario governance and transparency

THANK YOU

ANY QUESTIONS?