THE 7TH C-SUITE SEMINAR

Effective risk management practices & risk intelligence

Date: 6th November 2020

Venue: Lake Naivasha Resort

Presented by: CPA Dr. Hillary Wachinga

Trainer's profile

Dr. Hillary is an audit, risk and governance professional with 15 years work experience gained from the Big 4, banking, insurance and reinsurance sectors.

Dr. Hillary holds PhD in Strategic Information Systems, masters in information systems and a BSc Computer Science from the the University of Nairobi. Hillary has also successfully earned CPA(K), CISA, CISA, CRISC, CISM, CIA(1), CCA and CERM.

Hillary is grateful to ICPAK for the opportunity to train you!

Training Program

14:00-16:30pm	2 Hours	**Leveraging on effective risk management practices and risk intelligence to achieve value and streamlined processes across the organisation** • Governance Risk & Compliance • Linking Risk Management to Strategy • Setting the right tone at the top for effective risk management • Risk Appetite and Tolerance • Power Business Intelligence (BI) Tools and Dashboards	Presentation	CPA Dr. Hillary Wachinga *Senior Risk Management, ICT & Governance Consultant*
	30 Mins	Q&A		Session Chair
		End of Day Two		

Areas of focus

1

Governance, Risk and Compliance

- Introduction to governance, risk and compliance (GRC)
- Top 10 trends in year 2020
- Future of GRC
- Case studies

2

Linking Risk Management to strategy

- Key performance indicators (KPIs), key risk indicators (KRIs) and key result areas (KRAs).
- Mapping KPIs/KRAs and KRIs for better attainment of strategic goals
- Strategies to mitigate strategic risks, strategic misalignments

Areas of focus

3

Setting the right tone at the top for effective risk management

- Discussion on risk governance (including culture)
- Assessing and enhancing effectiveness of risk culture
- Case studies

4

Risk Appetite and Tolerance

- Definitions : risk appetite and risk tolerance
- Practice example
- Application and usefulness in risk management
- Leveraging both for optimal business value and processes

5

Power Business Intelligence (BI) Tools and Dashboards

- Introduction to Power BI
- Power BI use in risk assessment, reporting and monitoring
- Recent developments risk data analytics – predictive and prescriptive risk modelling
- Case studies

Leveraging on effective risk management practices and risk intelligence to achieve value and streamlined processes across the organisation

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GOVERNANCE

- refers to the establishment of legal, economic and institutional environment for advancing long- term **shareholder value** while remaining conscious of responsibilities to stakeholders, the environment and the society in general.

CORPORATE GOVERNANCE

- Is the way a company is governed/directed/managed to attain social, economic and environmental goals.

- is the structure and system of rules, practices and processes by which an organization is directed, controlled and held accountable. *(Mwongozo, 2015).*

Other best practices – *King IV code of governance, CMA Code of Governance (for listed firms), Companies Act 2015 and OECD*

CORPORATE GOVERNANCE

- Policies approved by board and procedures approved by management.
- Strategy accompanied by relevant structure and resources (capital/budget) to implement it.
- Reporting framework – to board, shareholders, regulators, etc
- Performance management framework – effectiveness of board and management
- Control mechanism – 3 lines of defense (LoD) i.e. management, risk & compliance, auditors/regulators/board of directors
- Culture – set of beliefs, ethics and value system

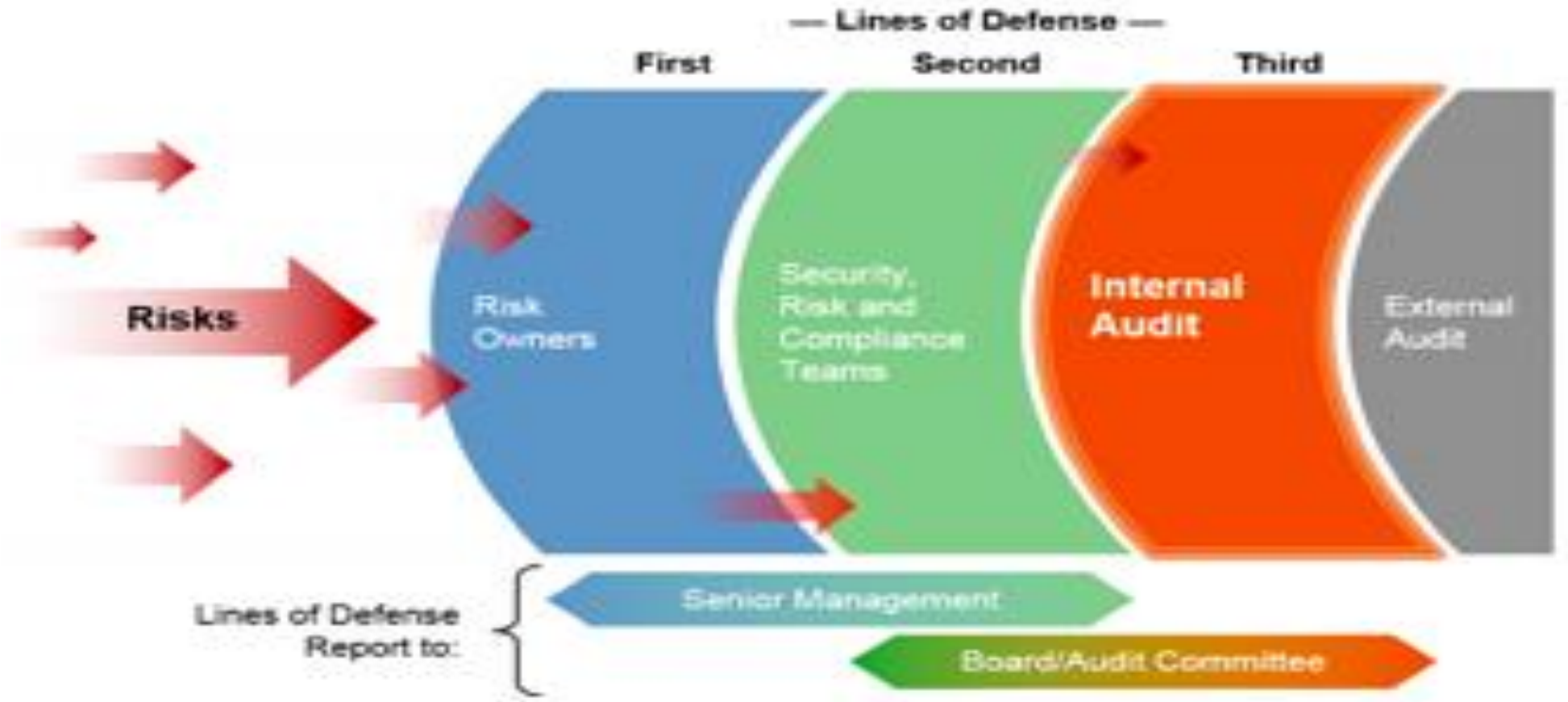
WHY CORPORATE GOVERNANCE

- Increased likelihood of attaining corporate goals (ESG)
- Enhanced confidence for the stakeholders (investors, staff, etc.)
- Lowers cost of capital – effective risk management (total cost of risk = capital)
- Enhanced reputation and better brand value
- A compliance requirement (in most jurisdictions)

PILLARS OF CORPORATE GOVERNANCE

- **Accountability** – board of directors (via code of corporate governance)
- **Transparency** – timely disclosure of information on company's activities to interested parties
- **Fairness** – protect rights of shareholders and treat them on equal basis.
- **Responsibility**- acknowledge rights of interested parties and cooperate with them in ensuring company's financial stability

3 Lines of defense (LoD)…



Relationship between Management and Auditors

- 1st and 3rd lines of defense (LoDs) & how the 2 LoDs relate

- 1st line of defense (LoD) – role include:
  - Designing and implementing an effective internal control system
  - Sourcing, resourcing and facilitating assurance units/experts as part of corporate governance
  - Confidence with stakeholders on the integrity of financial information
  - Maintain arms-length relationship with auditors

- 3rd line of defense (LoD) – role include:
  - Key component of corporate governance framework
  - Giving assurance on the effectiveness of the internal control system (ICS) designed and implemented by the 1st LoD
  - Offer unbiased/independent/professional opinions upon completion of audits

Introduction to Risk Management

The effect of uncertainty on objectives

ISO 31000: Risk Management - Principles and Guidelines

The possibility that an event will occur and adversely/favorably affect the achievement of objectives.

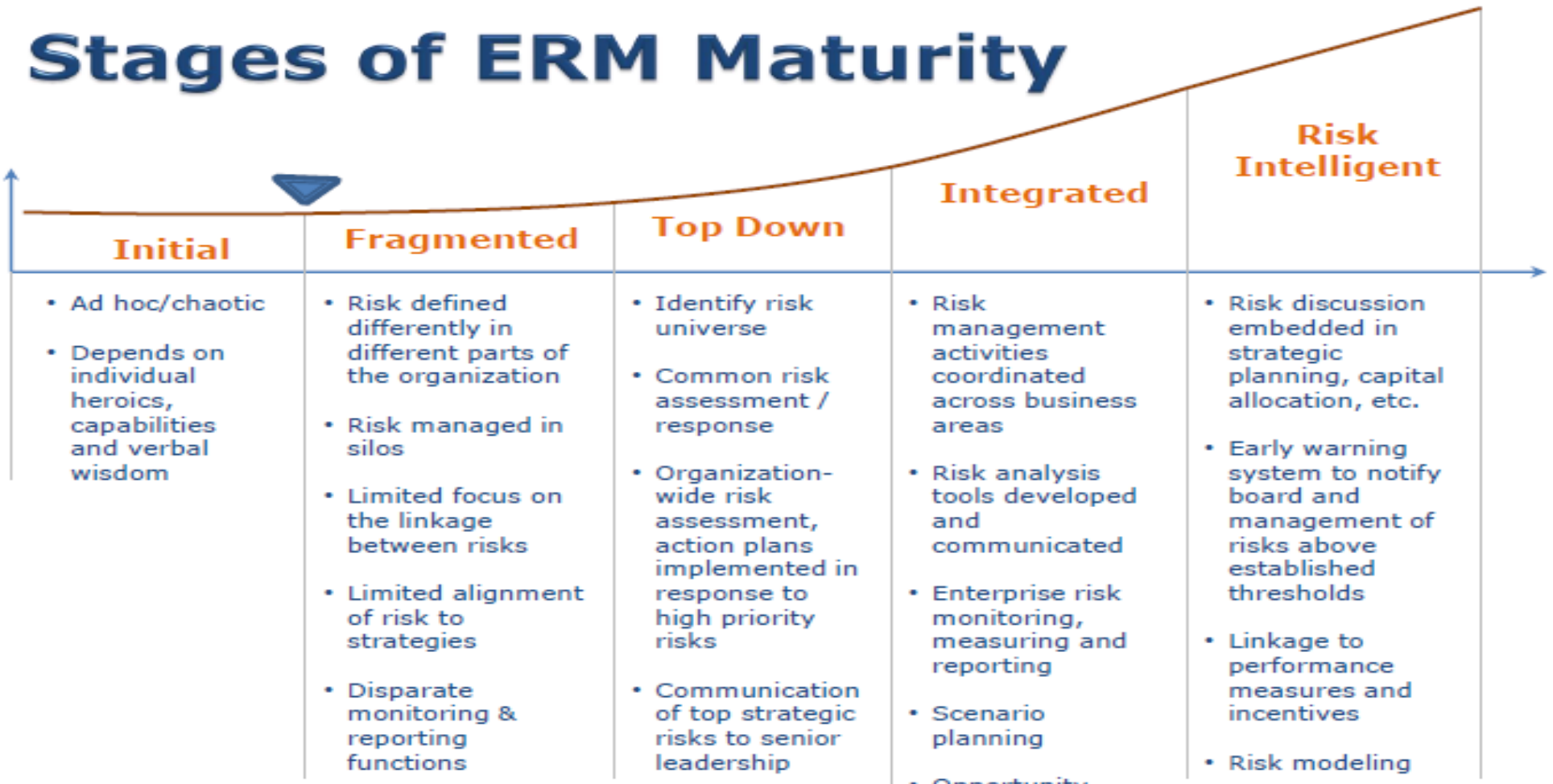
COSO Framework

Introduction to Risk Management

Definition of Enterprise Risk Management (ERM)

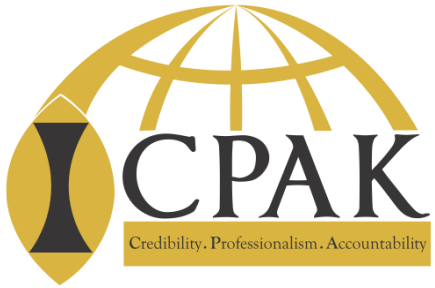
ERM is a **process**, embedded in company's **strategy setting** to **identify** and **manage** risk to be within approved **risk appetite**, so as to provide reasonable assurance in attaining corporate goals (Presenter, 2020)

ERM Maturity



Deloitte Development LLC, 2010

ERM Maturity (example)



As-Is Maturity Framework

Component	Basic	Basic +	Mature	Mature +	Advanced
Risk Governance	Risk Policy Framework	Procedure Manual and Individual Risk Policies	Risk Culture & Philosophy	Integrated Assurance Plan	Quality Assurance Review
	Implementation Work Plan	Risk committees with TORs	Change Management Plan	Risk Control Validation by Internal Audit	Joint Risk Management Forums
Risk Assessment	Risk Identification Methodology	Divisional Risk Profiles	Business Resilience Profiles	Advanced Risk Assessment Techniques	Risk Based Stress Testing and Scenario Analysis
	Strategic risks profile	Operational Risk Profiles	Trend Analysis	Risk Based Strategic Planning	Total Portfolio Analysis
Risk Quantification and Aggregation	Risk Tolerance Limits	Risk Appetite	Values at Risk	Corporate Failure Models	Advanced Techniques (EC Assessment)
	High Level Risk Analysis	Graphical Representations of Risk Data	Root Cause Analysis	Risk Adjusted Performance Drivers	Risk-based Capital Allocation
Risk Monitoring and Reporting	Management Risk Reporting	Key Risk Indicators	Stakeholder Reporting	Integrated Risk Dashboards	Capital Adequacy Reporting
	Annual Report Disclosure	Incident and Emerging Risk Reporting	Board Committee Reporting	Sustainability Reporting	Real-time Risk Monitoring and Reporting
Risk and Control Optimization	Risk Optimisation Worksheets	Evaluate Control Effectiveness	Business continuity management	Risk Control Policies	Embedding Risk into Key Initiatives
	Basic Action Plans	Action Plans to Improve Controls	Review the Total Cost of Risk	Control Self Assessment	Upside Risk

FRAMEWORK LEGEND		Overall Risk Index
	Undefined	73%
	Started	
	Implemented	
	Embedded	

Types of risks –*CBK Prudential guidelines*

STRATEGIC RISK MANAGEMENT

CREDIT RISK MANAGEMENT

LIQUIDITY RISK MANAGEMENT

MARKET RISK MANAGEMENT

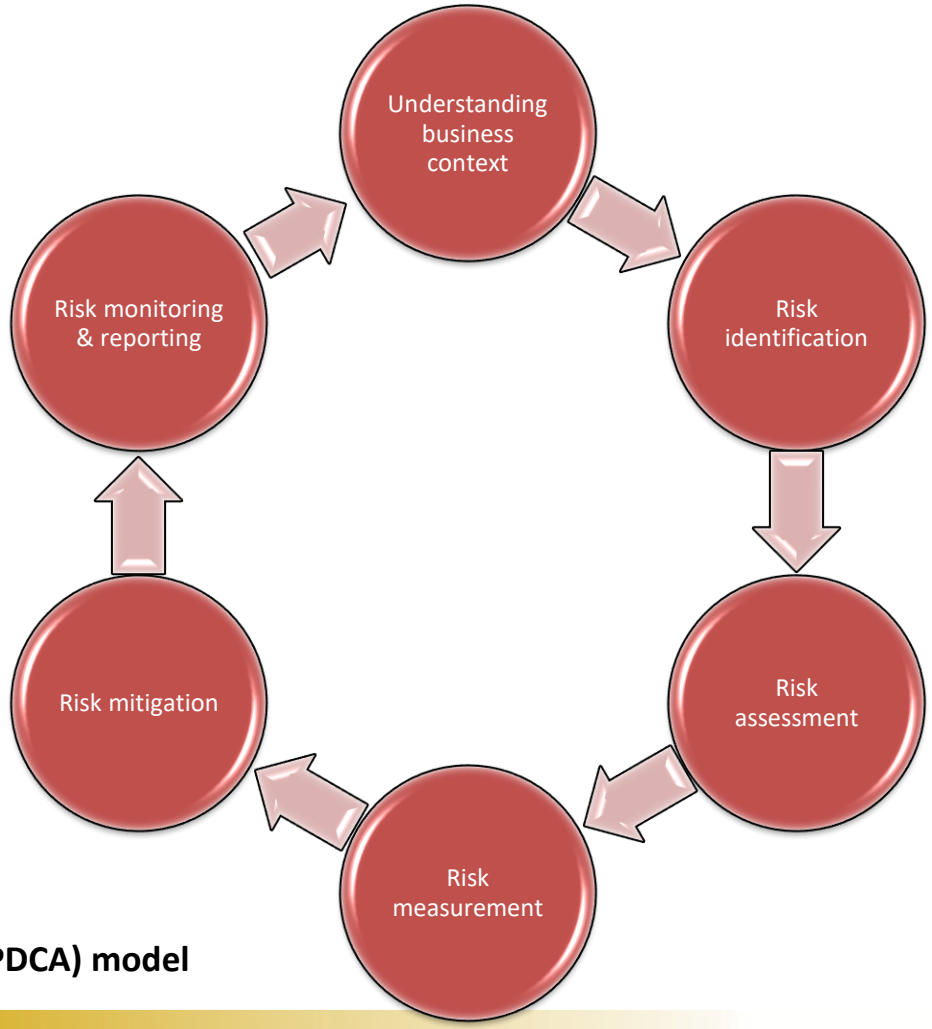
OPERATIONAL RISK MANAGEMENT

INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) RISK

REPUTATIONAL RISK MANAGEMENT

COMPLIANCE RISK MANAGEMENT

Lifecycle of Risk Management



Based on Plan-Do-Check-Act (PDCA) model

Risk Management Elements

- **Risk Governance –** *institutional risk management framework, risk culture*
- **Risk Assessment –** *likelihood & impact if risk occurs*
- **Risk Quantification & Aggregation –** *risk modelling*
- **Risk Monitoring & Reporting –** *dashboards*
- **Risk & Control Optimization –** *upside of risks*

Risk Assessment

Risk funnel

Inherent risks

Risk mitigation/controls

Residual risks

Current risks

Risk Quantification & Aggregation

- Undertaking “root-cause” analysis
- Linking key risk indicators (KRIs) to relevant risk appetite thresholds
- Updating risk registers with KRIs per process
- Risk modelling, economic/solvency capital vs own funds

Risk Monitoring & Reporting

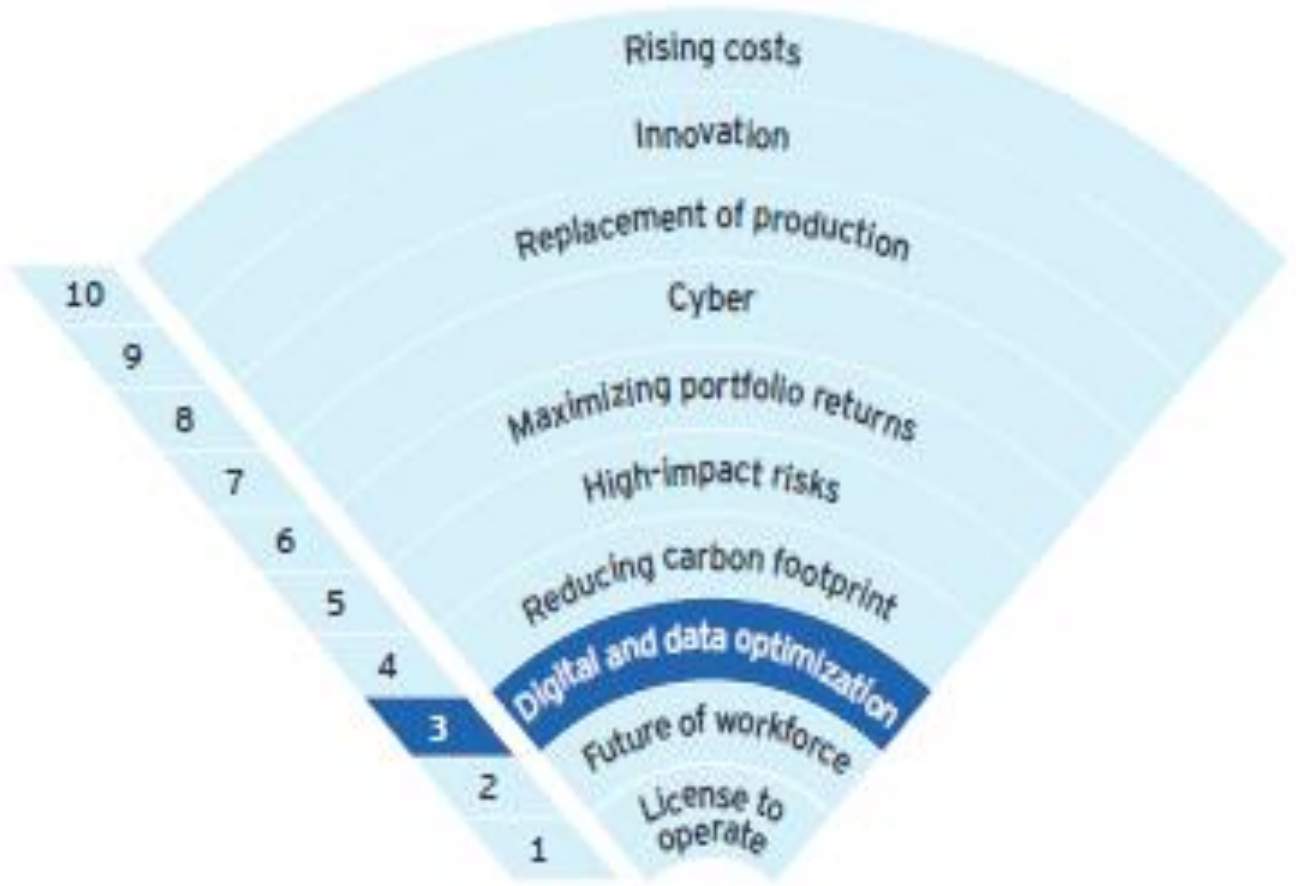
- Performance of KRIs against set risk appetite thresholds
- Reported risk incidents (Loss events/incident management) – **loss data framework**
- Management reporting to the board on existing and emerging risks (on quarterly basis)

Risk & Control Optimization

- Identification of improvements for top risks
- Proactive as opposed to reactive risk responses
- Risk Control self-assessments (RCSAs) on effectiveness of risk mitigation/controls
- Evidence of risk-informed decisions i.e. undertaking risk assessments before effecting major decisions

Global top risks:

EY (2020)



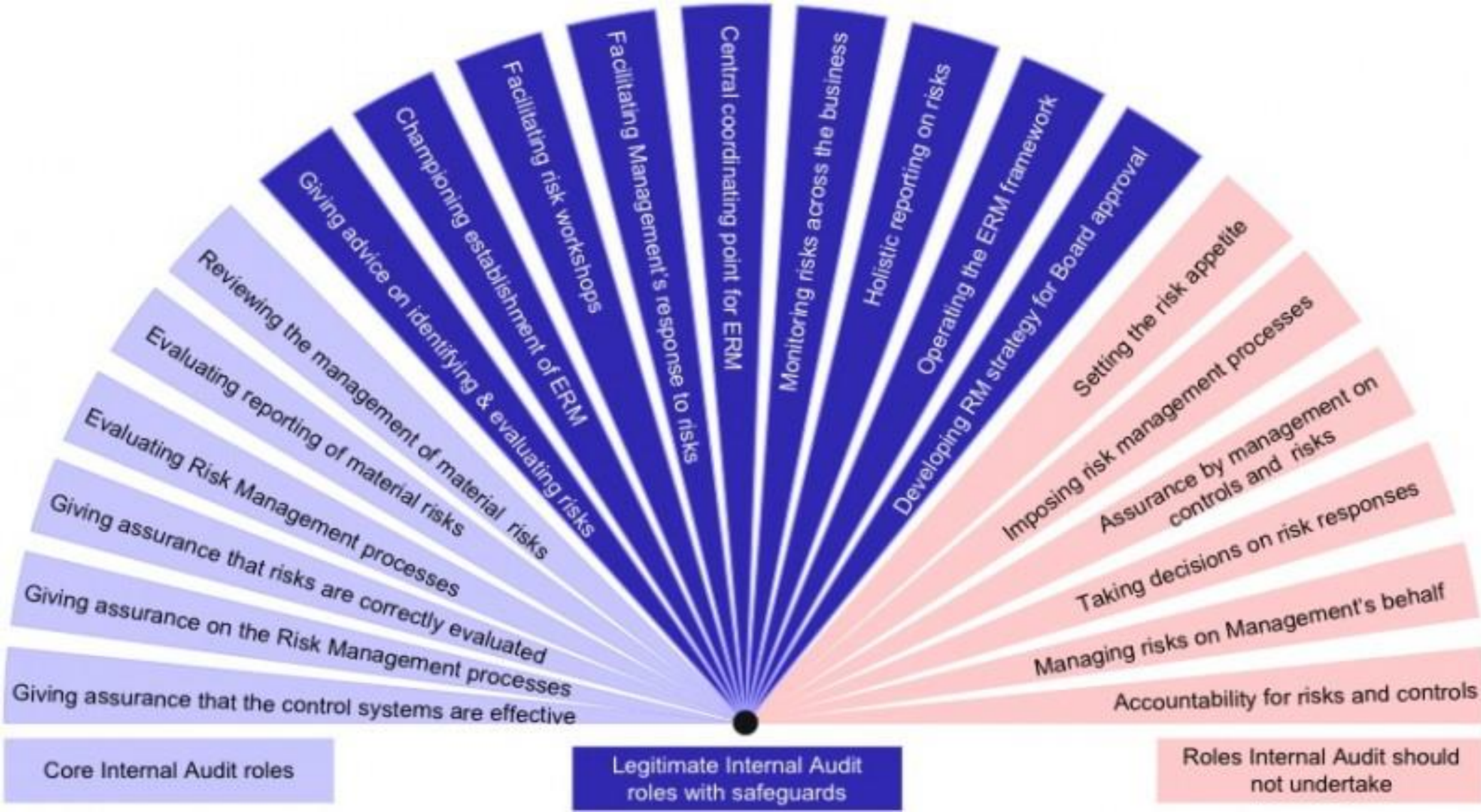
Global top risks:

Top Five Risks by Overall Risk Score: 2Q19-1Q20

Rank	3Q19	4Q19	1Q20	2Q20
1	Digitalization Misconceptions	Strategic Assumptions	Strategic Assumptions	The Second Wave
2	Lagging Digitalization	Cyber-Physical Convergence	Cyber-Physical Convergence	The New Working Model
3	Strategic Assumptions	Extreme Weather Events	2020 US Presidential Election	Strategic Corrections
4	Data Localization	Data Localization	Data Localization	2020 US Presidential Election
5	U.S.-China Trade Talks	U.S.-China Trade Talks	Macroeconomic Stagnation	US/China Trade Talks

Source: Gartner (July 2020)

Roles in risk management (IIA, 2004)



Emerging trends in Risk Management

- Increased emphasis on emerging risks – sophistication in evaluating “unknown”risks (“”black swans”, “Zero-day attacks”) via risk modellings (stress testing and scenario analysis)
- Increased and rapidly changing regulatory compliance requirements e.g. data privacy & location laws – GDPR in Eurozone and Data Protection Act in Kenya (cost of compliance)
- Infusion of data analytics, technology and strategy(appetite) into risk management (including cloud risk and compliance concerns)

Emerging risks

Risks (existing or developing) that are difficult to predict or quantify and may have high loss potential due to their high uncertainty – (CRO forum, 2005). e.g.

- Inherent risks to 4th Industrial Revolution (4IRs) – blockchain, AI, big data & IoT, 3D printing, robotics, etc
- Cybersecurity related risks- CIA (confidentiality, integrity and availability)- creating cyber resilience, adequacy of benefit realization planning (BRP), etc
- Unknown or unpredictable events – e.g. zero-day attacks and & “black swan” events e.g. Covid-19 pandemic, globalscale cyberattack, etc
- Laws and regulations on cyberspace – GDPR, Data Protection Act (balancing privacy, security and RoI on IT investments). Supervision & regulation on cyberrisk at nascent stage in most jurisdictions

COMPLIANCE

Obeying a request a requirement, rule or regulation

COMPLIANCE

What you need to know:

- Understanding compliance landscape
- Identifying compliance requirements (what, why, when, how)
- Assessing the requirement
- Acting on the requirement – comply & explain, comply/explain, none
- Monitor, review and communicate

All in a compliance management framework (policy, procedures, checklist/matrix, resourcing)

COMPLIANCE

Emerging trends in compliance:

- Rapid changes in laws and regulations across the globe
- Balance between compliance and business value e.g. privacy laws
- Emerging technology on compliance mgt – “regtechs”
- Increasing cost of (non)compliance across the globe – “compliance as a business” in some jurisdictions.
- Increasing importance of compliance as part of corporate governance

Case study….

- British Petroleum (BP) Oil Spill - A Risk Management Failure - https://www.youtube.com/watch?v=KEgBmdWPnts
- Enron scandal- https://www.youtube.com/watch?v=3ktx_cmzflU
- TED talk on ERM **-** https://www.youtube.com/watch?v=voGyHN-tWMg
- The audit process - https://www.youtube.com/watch?v=cODdJvE1RCE
- Risk management prudential guidelines - https://www.centralbank.go.ke/wp-content/uploads/2016/08/risk-management-guidelines-january-20131.pdf

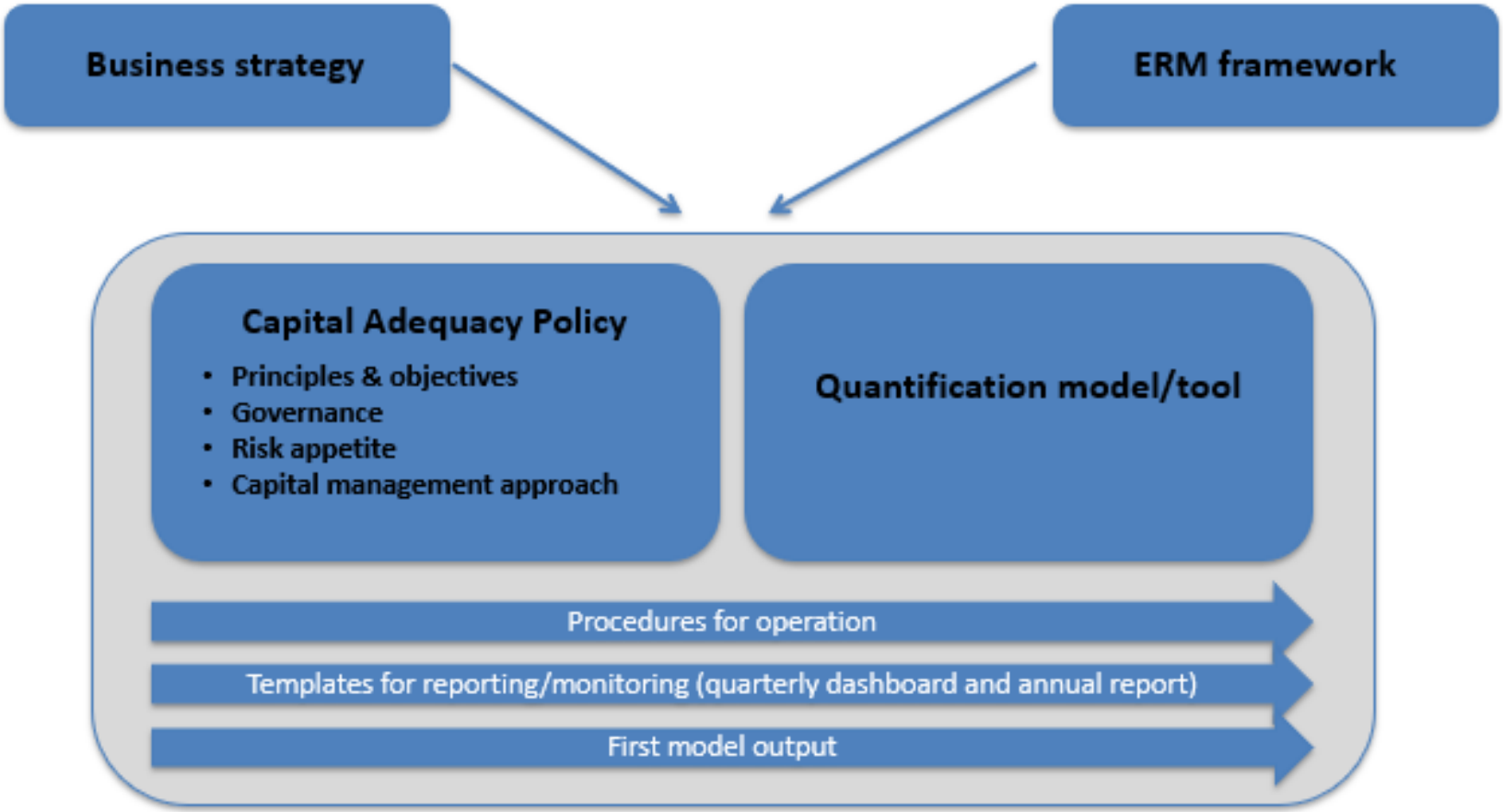
Areas of focus

2

Linking Risk Management to strategy

- Key performance indicators (KPIs), key risk indicators (KRIs) and key result areas (KRAs).
- Mapping KPIs/KRAs and KRIs for better attainment of strategic goals
- Strategic misalignment risks – root causes
- Mitigation of strategic risks

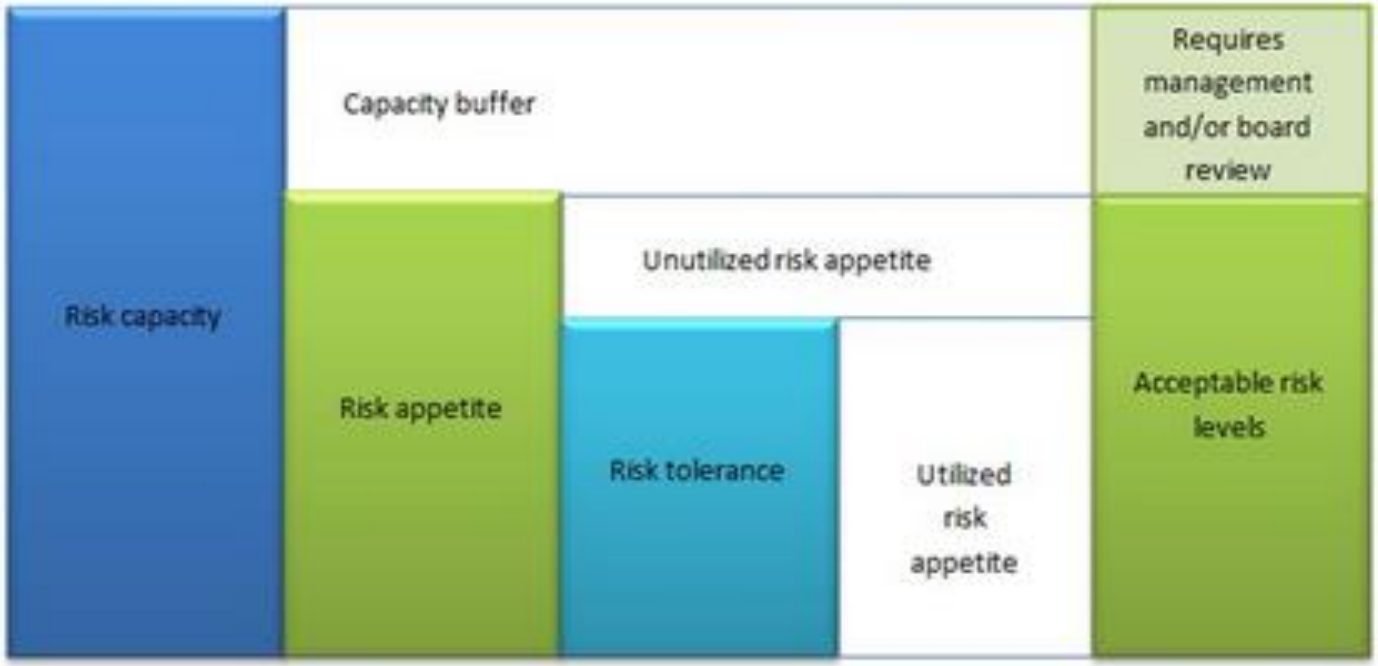
Linking Risk Management to Strategy….



Capital Adequacy Framework

Risk Management and Strategy

Definition of Risk terms



Risk capacity: **risk** an organization **is** able to support in pursuit **of** its business objectives.

Risk appetite: risk an organization **is** willing to accept in pursuit **of** its business objectives**.**

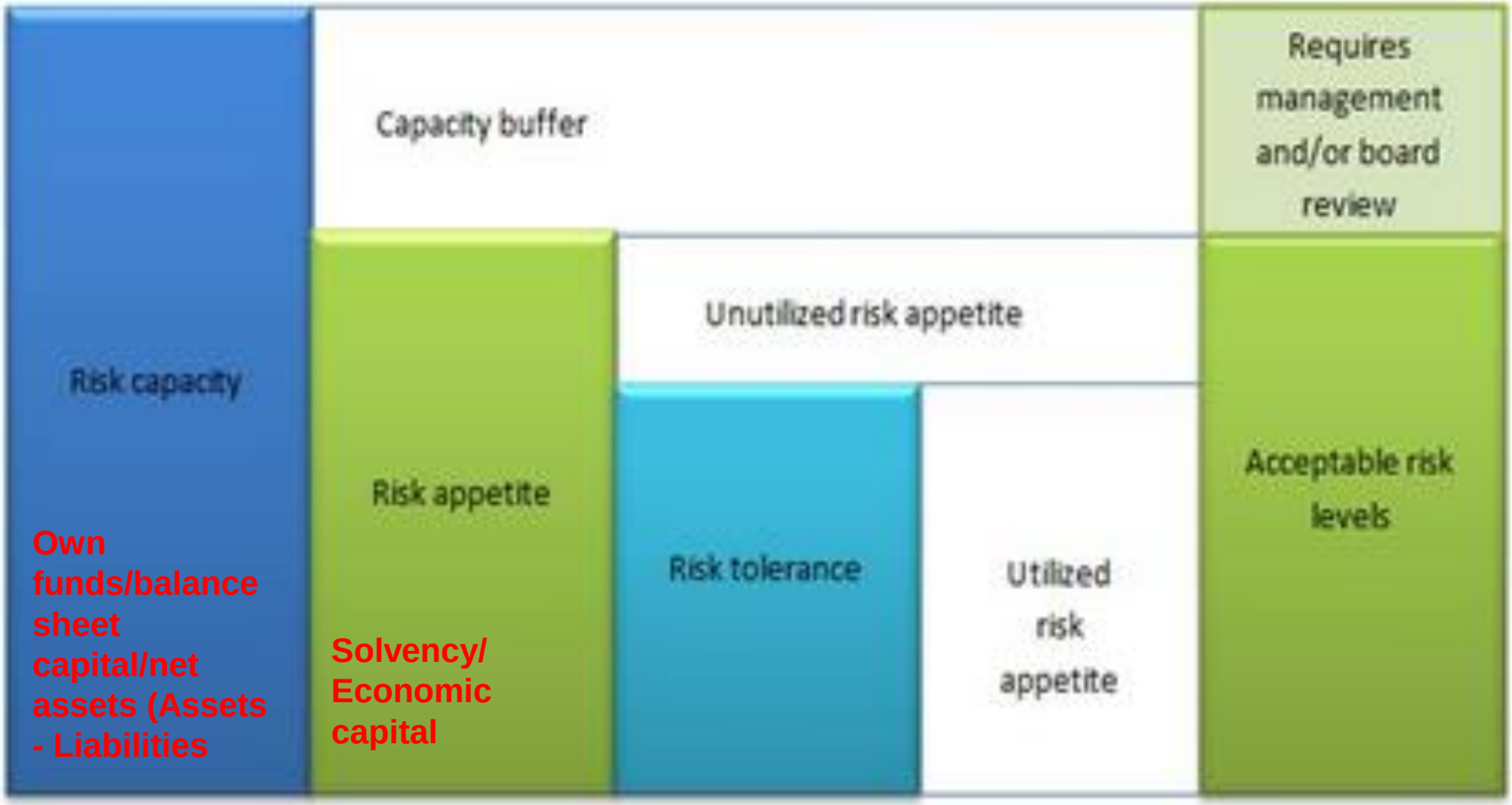
Risk tolerance: level of risk that an organization can accept per individual risk (limits)

Linking Risk Management to Strategy….

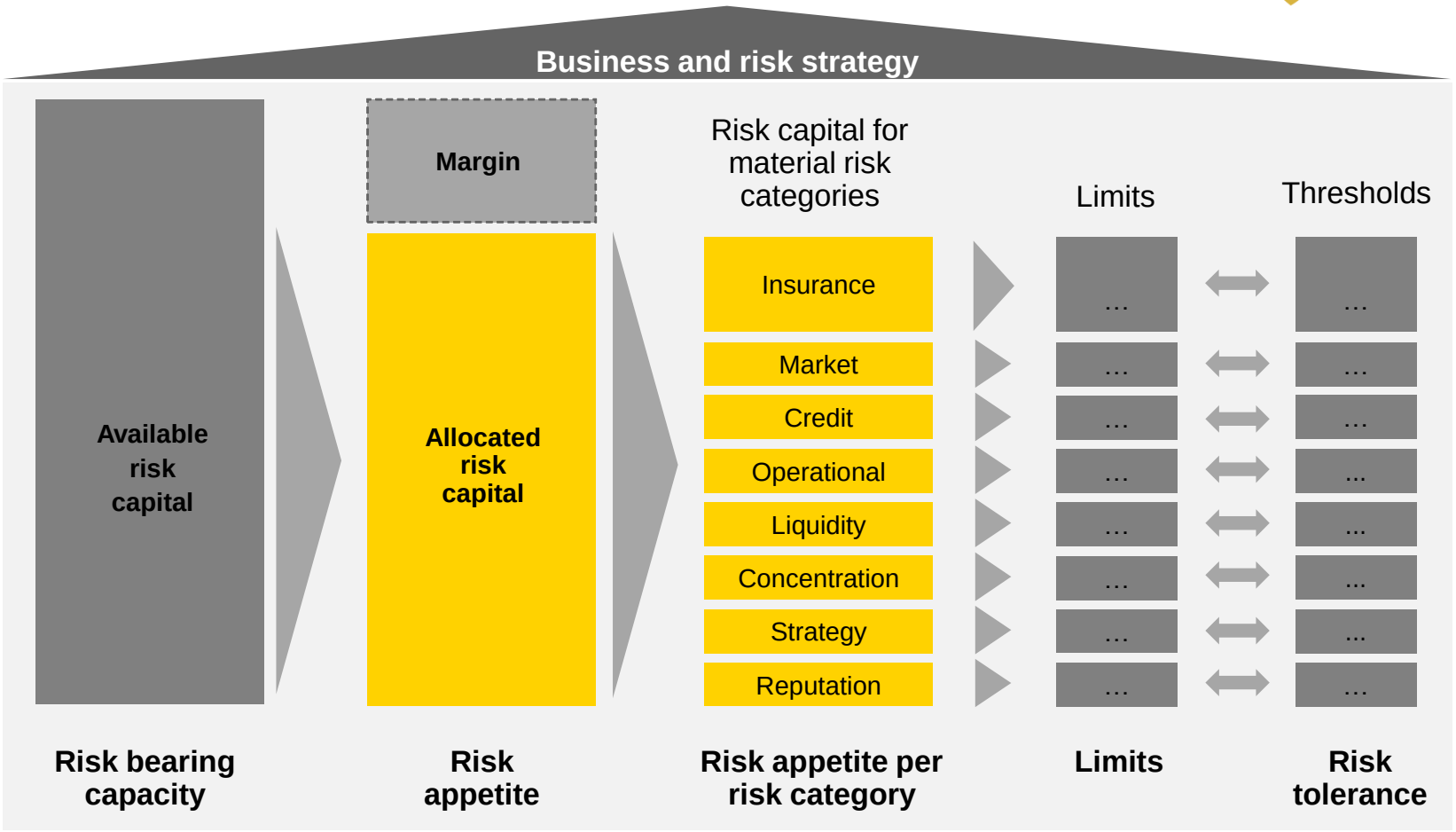
Risk appetite – as a convergence/link between risk management and corporate strategy

Risk Management & Strategy

Definition of Risk terms



Risk Management & Strategy



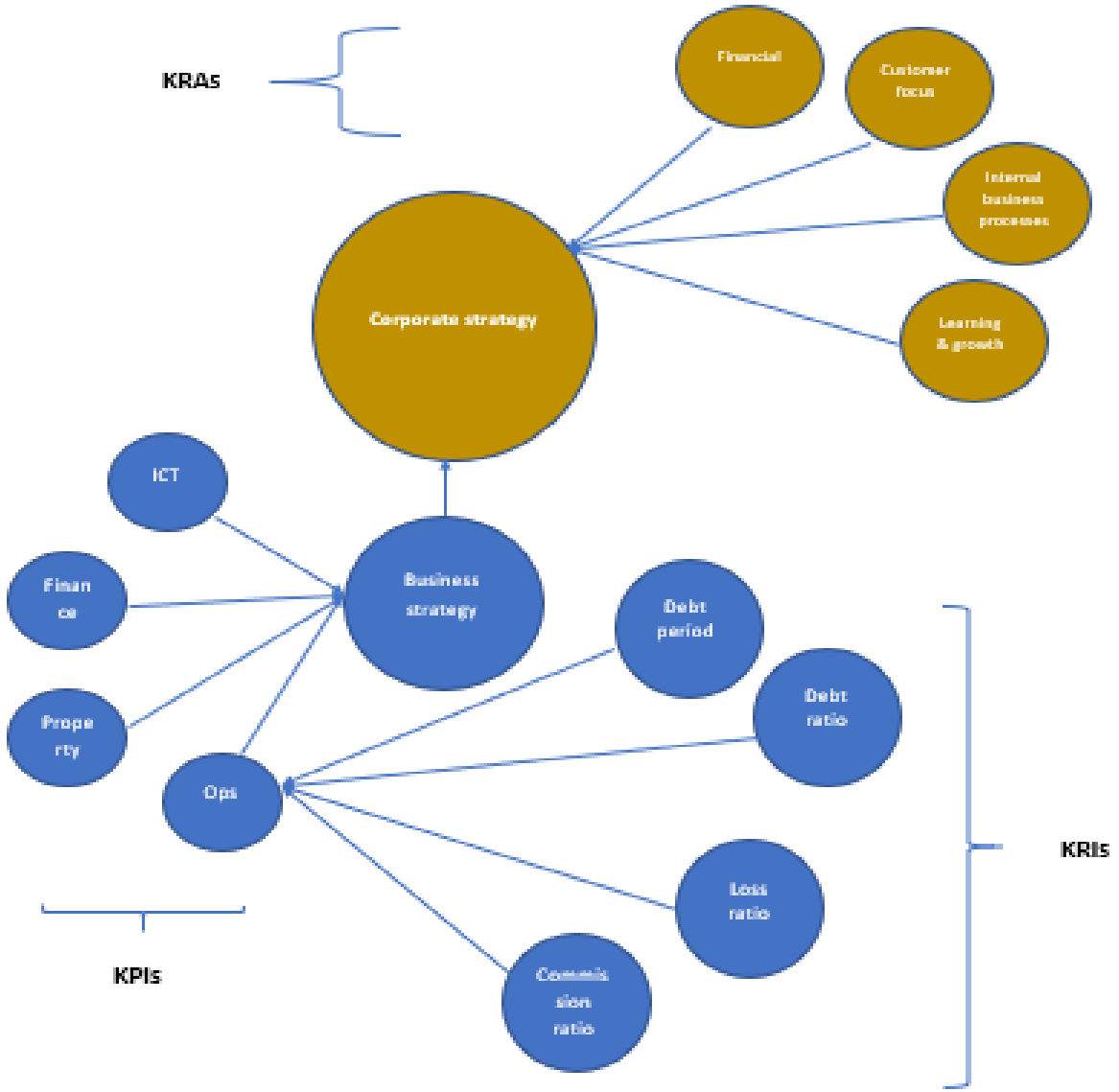
Linking Risk Management to Strategy….

Approaches to setting Risk Appetite statement = TOP- DOWN &

BOTTOM- UP;

Top-down statements	Bottom-up statements
e.g. We shall limit the chance of insolvency to a 1 in 200 year level	e.g. We shall only place reinsurance with securities rated A or better
These statements require cascading i.e. more granular and operational limits to be determined which are consistent with them before they may be operationalised	Since these statements are at an operational level already, limited or no cascading is required
The implications of risk management on the overall risk position of the company are apparent from these statements.	It is not obvious what the implications of these statements on the overall risk position of the company are.
An internal model is often used in cascading these statements down to an operational level	Since they are at an operational level and no aggregation of risk is required, these statements offer less scope to use the internal model

Linking Risk Management to Strategy….



Linking Risk Management to Strategy….

e.g…..

Corporate strategy		Business strategy - (re)insurance dept	
Pillars	Key Result Areas - KRAs	KPI	KRIs
-FINANCIAL	Efficient management of receivables	Debt collection period	90 days
		Debt ratio (debt collection)	20%
	Cost containment	Average loss ratio	58%
		Management expense ratio	13%
		Average commission ratio	27%
- CUSTOMER FOCUS			
- INTERNAL BUSINESS PROCESSES			
- LEARNING & GROWTH			

Linking Risk Management to Strategy….

- **e.g. of an extract from Risk Appetite Framework (RAF) – non capital KRIs**

List of Measures	Risk appetite limits	Deviations should be reviewed by the		
		Management risk committee	Board Risk Committee	Entire Board
	%/days	%/days	%/days	%/days
Debt ratio	20%	<=20%	20% - 36%	>36%
Impairment provisions	14%	<=14%	14% - 32%	>32%
Insurance Risk				
Loss ratio	53%	<=53%	53 – 63%	>63%
Combined ratio	87%	<=87%	87% – 103%	>103%

Linking Risk Management to Strategy….

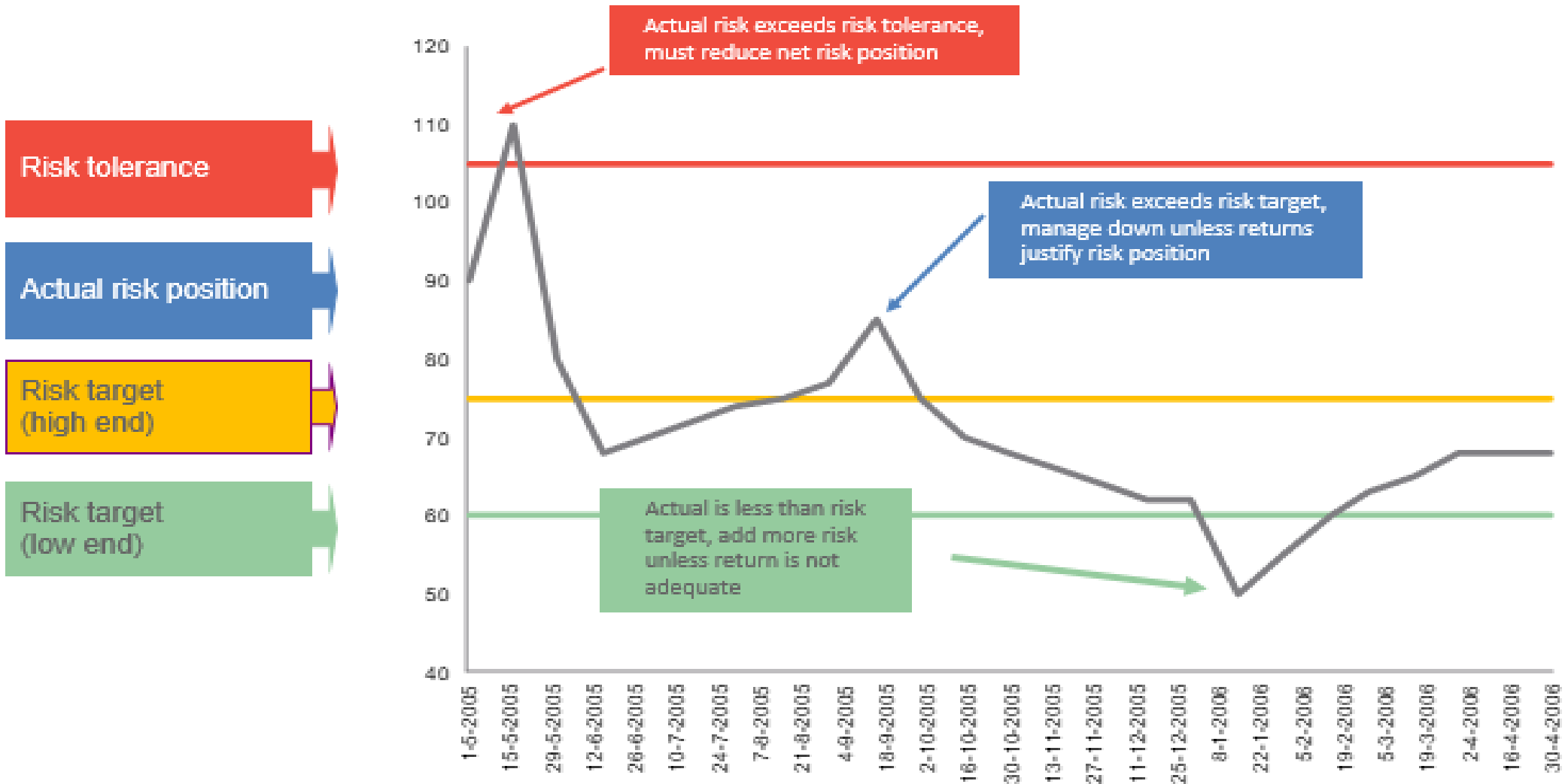
- **e.g. of an extract of Risk Appetite Framework (RAF) – capital & earning KRIs**

Dimension	Level
Economic Capital	125%
Regulatory Capital	200% of the regulatory capital; plus KShs 500 Million
Earnings at Risk	80% of planned comprehensive earnings in any given year
Cash-flow at Risk	• 125% of Earnings at Risk with: • A minimum of 75% of Earnings at Risk held in Tier I assets*; and • The difference, if any, (between 125% of Earnings at Risk and Tier I assets), should be in Tier 2 assets**

*Tier I assets - this is defined as Cash plus Bank Deposits
**Tier 2 assets -this is defined as Government Bonds, Corporate Debt and Quoted Equities

Linking Risk Management to Strategy….

- **e.g. of actual performance against risk appetite and risk tolerance**



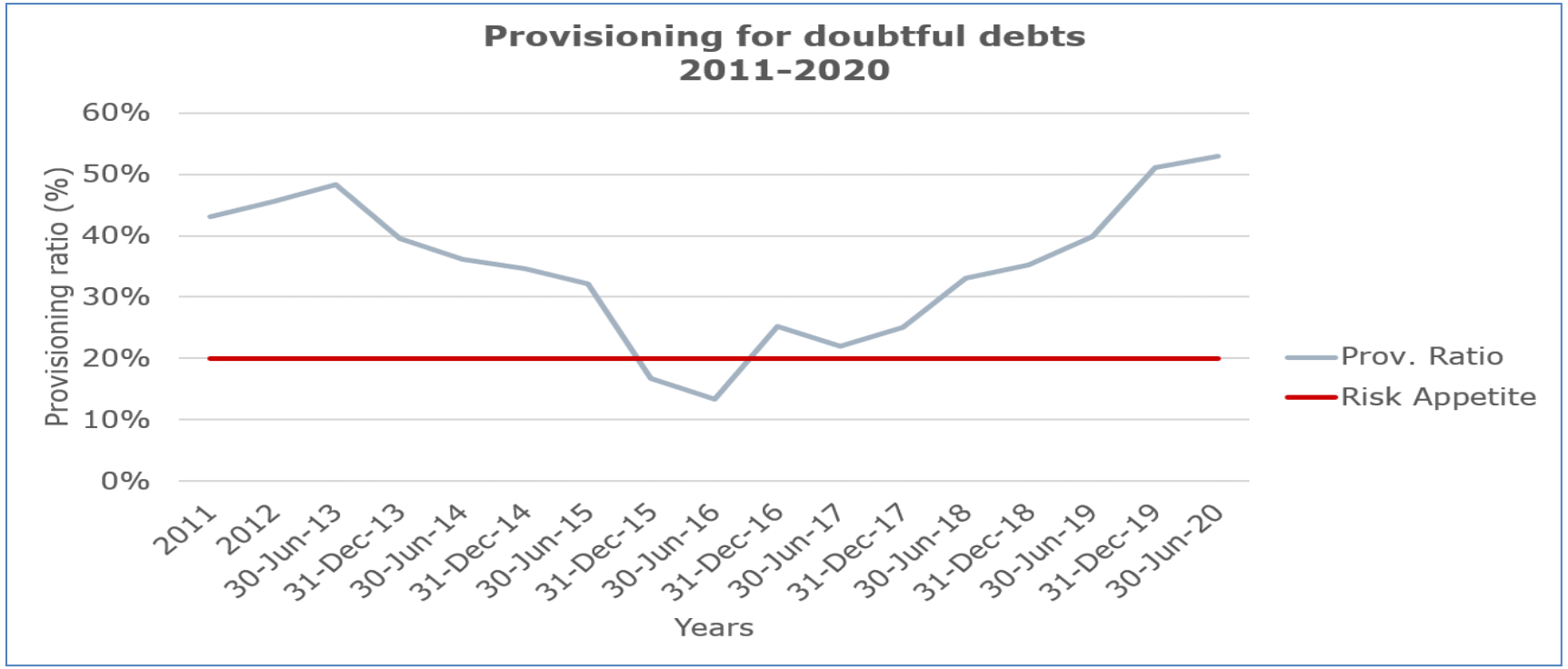
Linking Risk Management to Strategy….

- **e.g. of monitoring and reporting of non-capital KRIs**

LIST OF RISK LIMITS	RISK APPETITE LIMITS	CURRENT LEVELS AS AT				REPORTING THRESHOLDS			
		31.12.18	30.06.19	31.12.19	30.06.20	MRC	BRC	Entire Board	Remarks
Claims ratio (net)	55%	64%	67%	71%	59%	<55	55-60	>60	REPORT
Commission expenses ratio	35%	28%	27%	26%	25%	<35	35-40	>40	OK
Combined ratio	90%	105%	107%	111%	95%	<90	90-105	>105	REPORT
Days taken to collect insurance receivables	120 days	141 days	109 days	125 days	112 days	<120	120-135	>135	OK
Provision for doubtful debt as a percentage of gross debtors	20%	35%	40%	51%	53%	<20	20-30	>30	REPORT

Linking Risk Management to Strategy….

- **e.g. of monitoring and reporting of non-capital KRIs**



Linking Risk Management to Strategy….

- **e.g. of monitoring and reporting of capital & earnings KRIs**

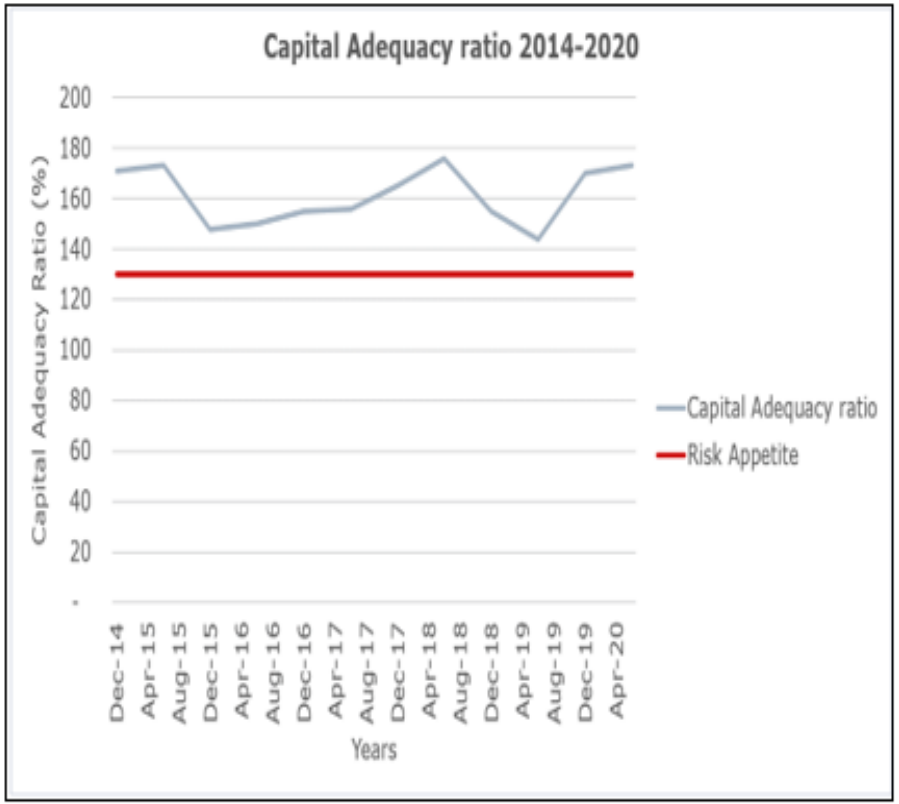
List of measures	Risk Appetite	30.06.20	31.12.19	30.06.19	MRC	BRC	Entire Board	Remarks
	%	%	%	%	Reporting Thresholds			
Economic Capital	130	173	170	144	120 - 130	110 - 120	<110	OK
Regulatory Capital	>200	GB – 305 LB - 818	GB – 272 LB - 975	GB – 301 LB - 754	175 - 200	150 - 175	<150	OK
Earnings at Risk (EaR)	<70	134	138	87	70 - 80	80 - 90	>90	REPORT
Cash flow at Risk (CFaR)	80	207*	212	189	110 - 120	100 - 110	<100	OK

Linking Risk Management to Strategy….

- **e.g. of monitoring and reporting of capital KRIs**

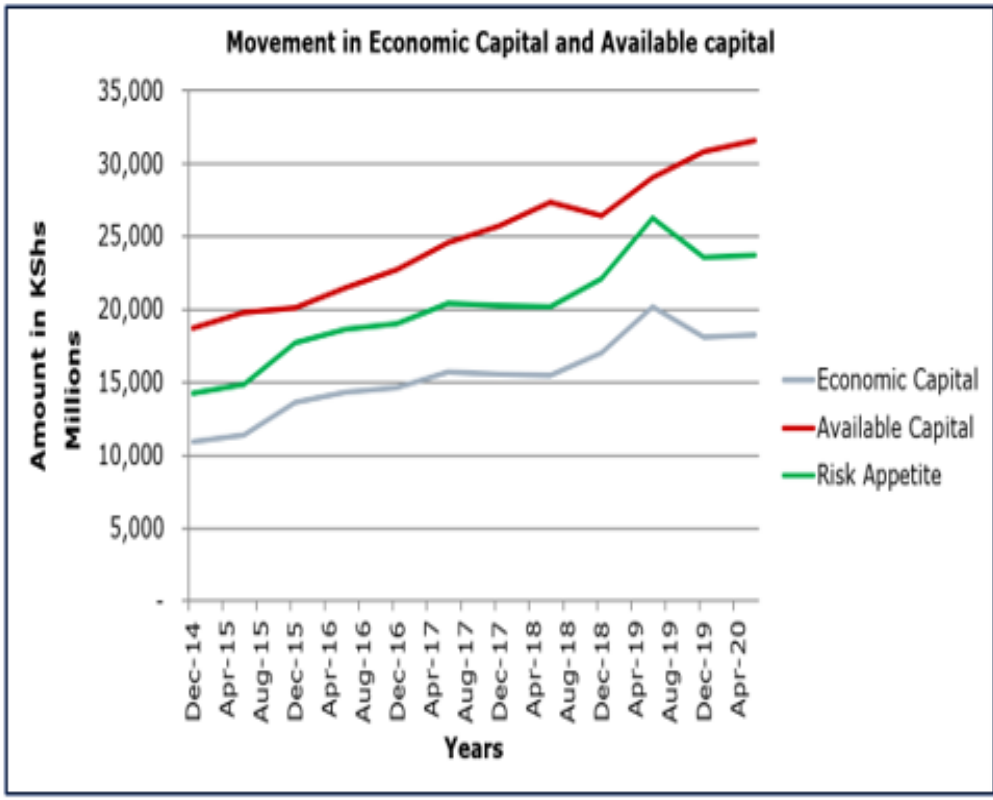
a) Movement in Capital adequacy ratio (CAR)

(2014 -2020)



b) Movement in Economic Capital and Available Capital

(2014-2020)



Strategic Risk

- is the current and prospective impact on **earnings or capital** arising from adverse business decisions, improper implementation of decisions, or lack of responsiveness to industry changes (CBK, 2013)

Misalignment of Risk Management and Strategy

- Risk management strategies not informed by corporate strategy
- Weak risk culture – risk management perceived as impediment to attainment of corporate objectives (business value)
- Inadequate tone-at-the-top – “risk as a regulatory compliance unit”
- Weak risk governance structure/resourcing/positioning – (lack of clear policies, procedures, limits, resources and controls to actualize the set business strategy)
- Inadequate allocation of capital to quantified risks

Strategic Risk Management

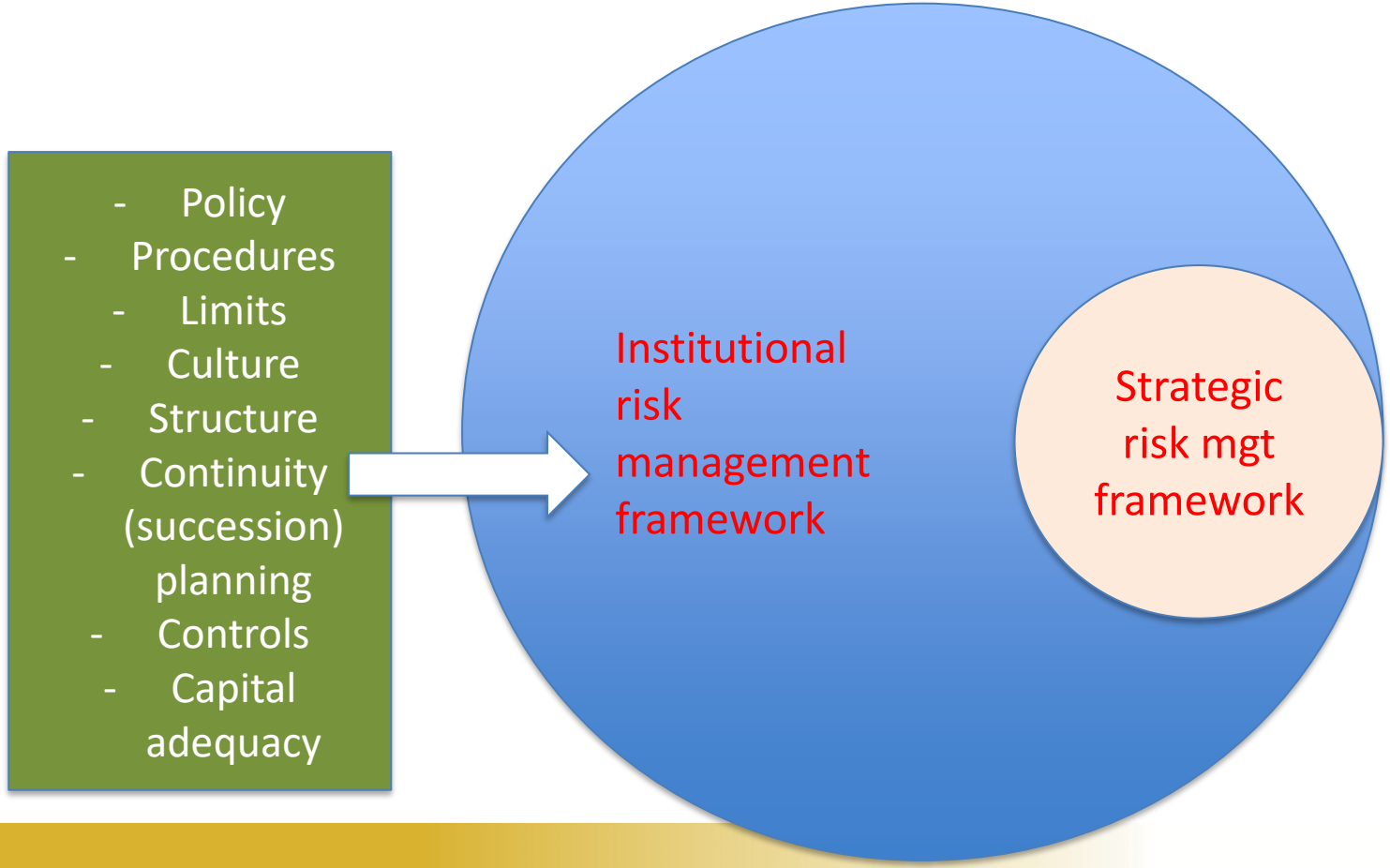
This is the process of

- identifying,
- assessing,
- measuring,
- monitoring and
- managing the risk in the institution's business strategy.

Basically evaluate how a variety of likely events/scenarios will affect the strategy implementation and their impact on a company's value

Strategic Risk Management

- Strategic risk management framework (*board-approved*)



Strategic Risk Management

- Risk-informed strategic planning (**KRAs-KPIs-KRIs triad**)
- Risk modelling to quantify future risks and levels of capital required to mitigate them (scenario and sensitivity analysis on strategy). Objective is to assess available vs required capital needs.
- Embedding risk management in strategy implementation
- Creating and entrenching the right risk culture (**setting right tone-at-the-top** and in the middle)
- Risk-based M&E of strategy implementation

Areas of focus

3

Setting the right tone-at-the-top for effective risk management

- Definitions and relevance to risk management
- Red flags of poor tone-at-the-top
- Assessing tone-at-the-top and enhancing it
- Case studies

tone-at-the-top

- “*tone-at-the-top*”

“*mood-in-the-middle*”

tone-at-the-top - definitions

- It is the ethical atmosphere that is created in the workplace by the organization's leadership (Association of Certified Fraud Examiners)
- It describes an organization's environment, as established by its board of directors, audit committee and senior management. It is set by all levels of management and trickles down to all employees (CIO, 2020)

Importance of right tone-at-the-top

- Key component of risk governance (***risk culture***) thus contributing to effective management of risks and increasing likelihood of attaining set objectives.
- Cog of internal controls and corporate governance – transparency, responsibility, accountability thus investor & staff confidence
- Promotes unity of purpose in attainment of corporate objectives and ethical practices across an organization

Red flags on tone-at-the-top (Protiviti, 2020)

- Management does not involve the board in strategic issues and important policy matters in a timely manner.
- Risk is an afterthought to strategy setting and business planning, e.g. risk is not considered explicitly by management when evaluating whether to enter new markets, introduce new products, etc.
- There is evidence of executive resistance to bad news
- There is tolerance for conflicts of interest in the execution of significant business activities.

Evaluating tone-at-the-top

Conduct independent assessment of tone-at-the-top (risk culture surveys) to ascertain existence and effectiveness – as part of controls assessments or compliance review:

- Benchmarking with peers
- Use of incident reporting mechanisms
- Assessment of firm's reputation in the social media
- Regular employee & customer surveys
- Conducting staff exit interviews
- Undertaking group discussions
- Use of anonymous hotlines
- Reviewing tone of communication to employees by management
- Impromptu office visits by members of BAC

Setting right tone-at-the-top

- Regular communication across organization on importance of ethics and values (engrained in a documented code of conduct/ethics policy)
- Promoting right culture that encourages reporting and mitigation of unethical practices e.g. whistleblowing policy
- Undertaking independent review on the effectiveness of tone-at-the-top and implementing recommendations thereof
- Embed tone-at-the-top into company's performance management – reward & punishment

Areas of focus

4

Risk Appetite and Tolerance

- Definitions : risk appetite and risk tolerance
- Practice example
- Application and usefulness in risk management
- Leveraging both for optimal business value and processes

- Already covered above

Areas of focus

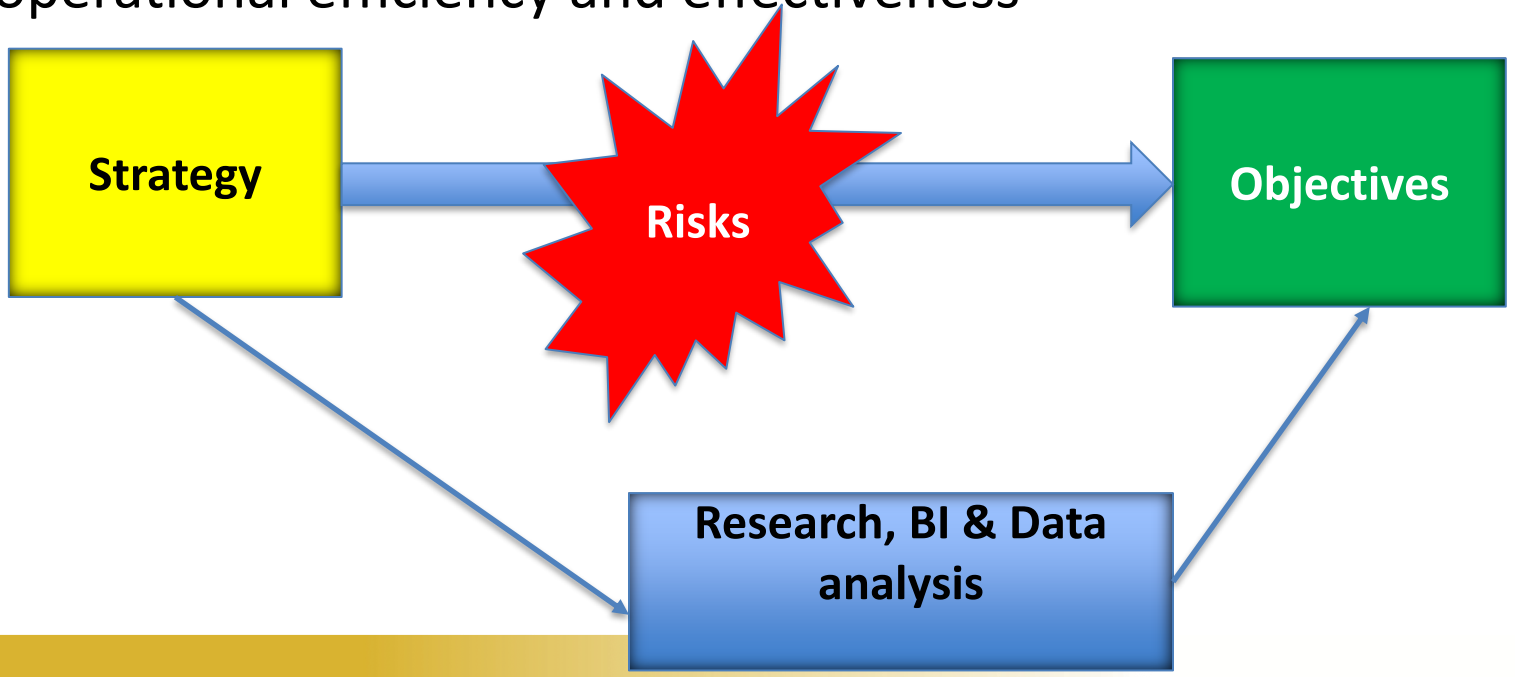
5

Power Business Intelligence (BI) Tools and Dashboards

- Introduction to Power BI
- Power BI use in risk assessment, reporting and monitoring
- Recent developments risk data analytics – predictive and prescriptive risk modelling
- Case studies

Data analytics

- Give competitive advantage – separate high performers from the rest
- Data-driven/informed decision making process – for optimal operational efficiency and effectiveness



Microsoft Power BI

- https://www.youtube.com/watch?v=yKTSLffVGbk&feature=emb_logo
- https://www.youtube.com/watch?v=_OOyJfszJXY&feature=emb_logo

Microsoft Power BI

- A data visualization tool – on-premise or cloud-based
- Helicopter view of performance in real-time – BSC, M&E. This can also be to a granular level e.g. by product, region, salesman, business unit
- Enables timely decision making, identification of risks & opportunities, thus competitive edge (via live dashboards and reports of KRAs/KPIs)
- Infuses efficiency and effectiveness of BI and data analytics
- Reduces cost of compliance and improves customer experiences

Microsoft Power BI

- An example…..foreign currency risk

https://www.youtube.com/watch?v=UP0Fc8I_LDc

Q & A

THANKS

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