









Developing Next-Gen ASEAN Insurance Leadership Talent



Risk Appetite

11:00 - 12:45 p m

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Learning Objectives

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Risk Appetite

- ➤ This section aims to introduce the basic framework of risk appetite.
- An interactive exercise on drafting a set of risk appetite statements for a sample company is included.
- At the end of this section, students will be able to understand the concept of risk appetite with respect to insurance and be able to articulate accordingly.

Introduction



Risk Appetite

- > Risk appetite is a <u>deceptively simple concept</u>:
 - "How much risk should we take?"
- ➤ A typical response to the above question is: "We are a conservative company"
- Answering the above question with clarity in the insurance context is deceptively challenging!

Introduction

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Risk Appetite

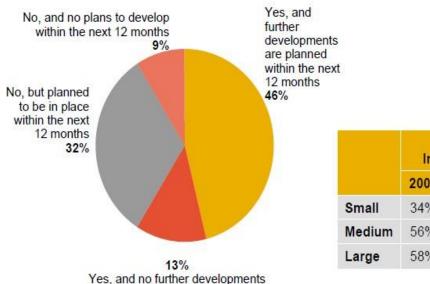
- ➤ What **really** is a risk appetite statement?
 - What does it look like?
 - How and where do we use it?

Industry Risk Appetite Framework



Risk Appetite

The proportion of respondents who have a documented risk appetite has increased from 47% in 2008 to 59% in 2010



are planned over the next 12 months

	In Place		Not in Place, but Planned		No Plans	
	2008	2010	2008	2010	2008	2010
Small	34%	53%	44%	35%	22%	12%
Medium	56%	59%	33%	32%	11%	9%
Large	58%	71%	33%	29%	9%	0%

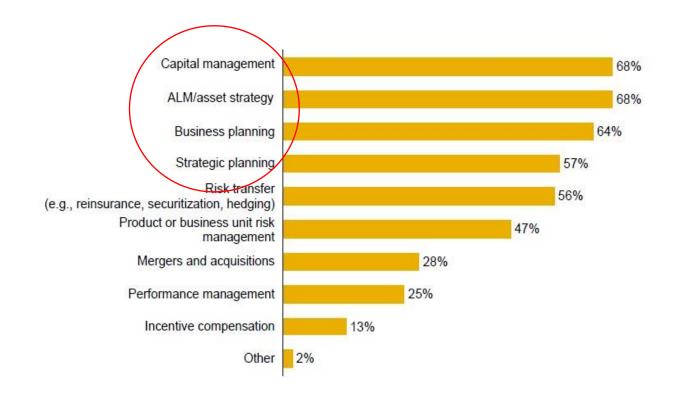
Source: 2010 Towers Watson ERM Survey Q.12 Do you have a documented risk appetite/tolerance statement? Please select one response.

Industry Risk Appetite Framework



Risk Appetite

The risk appetite statement significantly impacts decisions about asset strategy and capital management



Source: 2010 Towers Watson ERM Survey
Q.22 Within which business processes is risk appetite explicitly referenced or monitored? Please select all that apply.

Industry Risk Appetite Framework

Risk Appetite

Risk Capacity

The maximum amount of risk an organization is able to accept.

Risk Appetite

The amount of risk that an organization is willing to accept in pursuit of its corporate objectives

Risk Tolerance

How ready the organization is prepared to take at a risk type and/or business unit level

Risk Limits

Specific thresholds or targets for key risk metrics across risk dimensions and risk classifications

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Risk Appetite

Risk appetite defines the amount of risk that an insurer is willing to accept within its capacity in pursuit of its corporate objective.



Example Risk Appetite Statements



Risk Appetite

Risk and reward must be weighted in a manner that is appropriate for our existing strategic goals, risk bearing capacity and financial constraints. This forms the basis of our risk tolerance, which provides guidance and benchmarking on how our organization evaluates and accepts risks. Risk areas we track are generally a combination of insurance related risks (catastrophes mispricing, inadequate underwriting, adverse development), asset related risks (credit, investments, foreign exchange) and strategic (operations, governance)

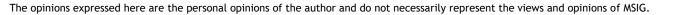
Our corporate-wide risk tolerance is to limit the probable maximum loss of no more than XX% of available capital assuming a 1-in-XX year period at a 99.X% level of confidence. Ideally we want to limit the likelihood of losing XX% or more of capital to XX%, and to be 99.X% confident of that likelihood. To the extent that rating agency capital requirements for our target rating is suggesting available capital should be at a certain level post a 1-in-XX year period event, and that level is more stringent then what is described above, then rating agency capital will be the default constraint. Our modeling of projected probable maximum loss will consider AM Best and S&P modeled capital in addition to our internally modeled economic capital.

Risk Appetite











Risk Appetite

What if there was no clarification on risk appetite?

Your financial advisor is going to perhaps...

- > take too much or too little risk?
- > invest too little?
- choose a wrong investment?
- not meet expectation on return?
- > spend all your money on other things?





Risk Capacity

Bank balance of \$2m



Will risk **\$1m** of the total for a **5% return** this year

Each year, you need some returns to prepare for Chinese New Year at least **half the time**

No appetite for Bitcoin (too risky)

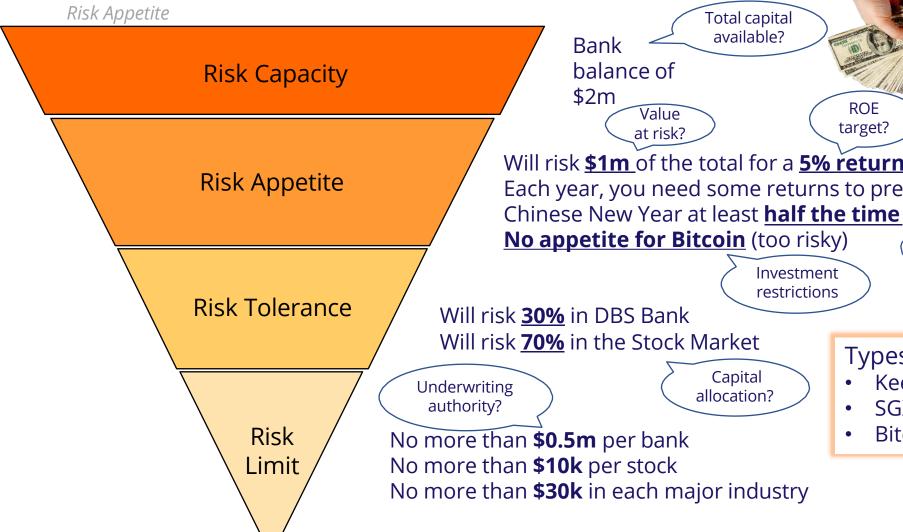
Risk Appetite

Risk Tolerance

Risk Limit Will risk 30% in DBS Bank
Will risk 70% in the Stock Market

No more than **\$0.5m** per bank No more than **\$10k** per stock No more than **\$30k** in each major industry Types of investments:

- Keep in DBS Bank (~1% return)
- SGX Stock market (~10% return)
- Bitcoin (???)



INSURANCE MAN

ROE target?

Will risk **\$1m** of the total for a **5% return** this year Each year, you need some returns to prepare for

> **Probability** of solvency

Types of investments:

- Keep in DBS Bank (~1% return)
- SGX Stock market (~10% return)
- Bitcoin (???)



Risk Appetite

What if there was no clarification on risk appetite? Insurance context

- Business actions not in line with the strategy?
- ➤ Being too aggressive in underwriting whilst being too conservative in investment or vice versa?
- Inconsistent risk perception at different levels of organization?

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Risk Appetite

Guarding Principles of Risk Appetite Statement

Simplicity

➤ Risk appetite statement, reward and risk measures should be easy to understand.

Measurability

Risk and the value of reward should be quantifiable and measurable.

Integration

> Risk and reward measures should be integrated with the business.

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Risk Appetite

Risk vs Reward

➤ Risk appetite includes two fundamental concepts of risk management:



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Risk Appetite

Overall Structure



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Risk Appetite

Reward

Reward is a positive result or return.



- Possible interpretations of a reward from an insurance company's point of view are:
 - Return on Capital ("ROC");
 - Accounting earnings;
 - Risk-adjusted Return on Capital ("RAROC");
 - Combined Operating Ratio ("COR"); and/or
 - Investment return*

*defined as investment income, realized and unrealized gains over beginning assets

COR and investment return are currently well understood, measured and monitored on a regular basis

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Risk Appetite

Suggested Reward Definition

Combined ratio of less than A% and investment return of minimum B% per annum.





Risk Appetite

Risk Appetite Statement Structure

➤ Based on the risk reward framework, we propose a company-level risk appetite for Company ABC as below:

ABC will target an **overall combined ratio** of less than **A** percent and an **investment return** of minimum **B** percent per annum over a period of three years.

In the course of doing so, the Board is willing to accept the risk of a reduction in financial resources of **C** million once in every **D** years.

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Risk Appetite

Risk

- Risk is a possibility of an undesirable outcome.
- Possible interpretations of a risk from insurance company's point of view are:
 - Capital Adequacy Ratio ("CAR") falling below statutory minimum;
 - CAR falling below the internal target;
 - Underwriting loss;
 - Reduction in financial resources;
 - Economic insolvency;
 - Reduction in enterprise value;
 - Downgrade of credit rating; and
 - Operational failure.



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Risk Appetite

Suggested Risk Definition

> A reduction in financial resources of X million

OR

> CAR falling below a specific level that is expected to occur once every 100 years



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Risk Appetite

Proposed Risk Appetite Statement 'Why 100 years?'

- ➤ Less than 20-50 becomes too aggressive
- More than 100 years is too theoretical and remote

100 years

Long-term sustainability



Risk Appetite

Example of a Risk Appetite Statement

Company XX will target an average combined operating ratio of **90%** or lower over a period of **three years**.

In addition, Company XX is prepared to assume some investment risk and will achieve stable investment returns as it continues to manage its assets and liabilities in an integrated manner, invest in safe and liquid assets and maintain an efficient and well diversified investment portfolio. In this regard, Company XX will target an average total investment return of 2% per annum or higher over a period of three years.

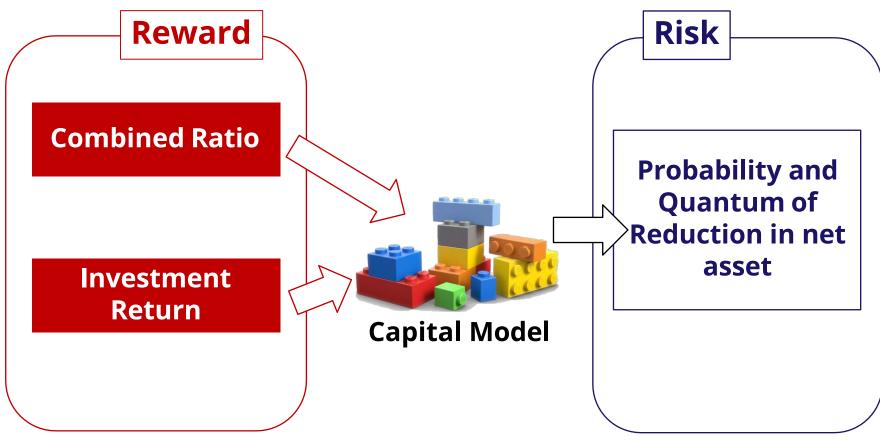
In the course of doing so, the Board of Directors of Company XX recognise the need to set the risk appetites of the six key risks as articulated under the risk appetite framework comprising of underwriting, reserving, market, credit, liquidity and operational/other risks.

Company XX may take risks up to the level of its risk appetite.

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Risk Appetite

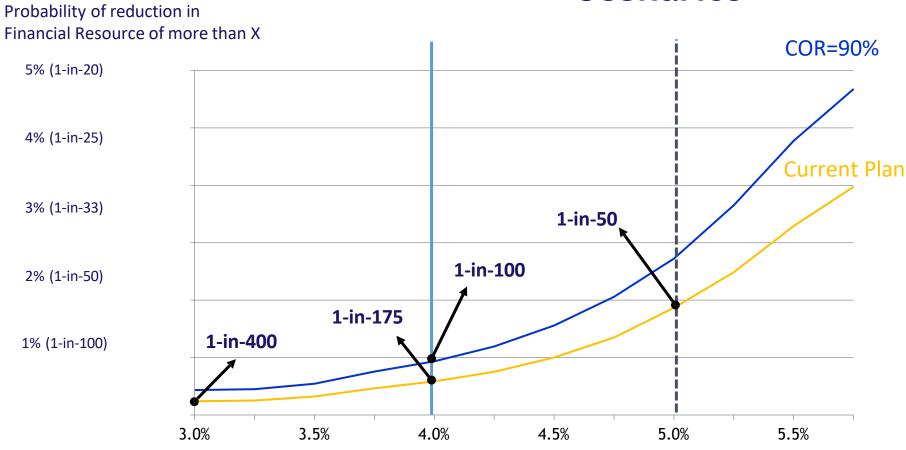
Linking Risk and Reward





Risk Appetite

Scenarios



Combined Ratio of less than 90% and Target Investment Return of

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Risk Appetite

Overall Structure



Risk Appetite Scale

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Risk Appetite

Risk Appetite / Tolerance	Description			
No or zero	No appetite refers to the absence of willingness to accept a specific risk, both upsides and downsides. The			
	equivalent theoretical annual frequency of the event should be zero per cent.			
Negligible	Negligible appetite refers to the willingness to accept some downside risk with an estimated return period of			
	more than once in 200 years (0.5%). This risk event is highly unlikely, however not impossible.			
Minimal	Minimal appetite refers to willingness to accept some downside risk with an estimated return period of			
	between once in 25 years up to once in 50 years (4%). Under normal circumstances, the adverse			
	event is not expected to happen but there is a slight possibility it may occur at some time.			
Low	Low appetite refers to willingness to accept downside risk with an estimated return period of between once			
	in 10 years up to once in 25 years (4%-10%). There is a history of some occurrence of the adverse			
	event.			
Moderate	Medium appetite refers to willingness to accept downside risk with an estimated return period of between			
	once in 5 years up to once in 10 years (10% - 20%). There is a history of casual occurrence of the			
	adverse event.			
High	High appetite refers to willingness to accept downside risk with an estimated return period of once in 5			
	years or less (more than 20%). There is a strong possibility that the adverse event will occur as there is			
	a history of frequent occurrences.			

No vs Minimal Appetite

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Risk Appetite

- > You are planning an upcoming holiday to Krabi.
- > You have **no appetite** for plane crashes.
- ➤ Your options are:



Underwriting Risk Appetite

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Risk Appetite

- Company XX has minimal appetite for underwriting losses, on both gross and net of reinsurance bases at a company level, where:
 - frequency of losses will be reduced through appropriate underwriting; and
 - severity of losses will be reduced by buying reinsurance.
- Company XX has minimal appetite for material losses arising from natural catastrophe events.



Reserving Risk Appetite

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Risk Appetite

- Company XX has minimal appetite for material negative deviations in earnings in any year from reserving deficits at a company level.
- Company XX will maintain individual net of reinsurance provisions with a probability of sufficiency of at least 75% on a group reserving basis.



Market Risk Appetite

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Risk Appetite

- Company XX has <u>low appetite</u> for investment loss from market volatilities, including real estate, in any one year at a company level.
- Company XX has <u>no appetite</u> to invest in complex investment instruments.
- Company XX has <u>low appetite</u> for material adverse impact on the investment performance as a result of unmatched foreign exchange exposure.



Credit Risk Appetite

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Risk Appetite

- Company XX has minimal appetite for credit risks, arising from investment asset counterparties.
- Company XX has <u>minimal appetite</u> for credit risks, arising from reinsurance counterparties.



Liquidity Risk Appetite

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Risk Appetite

- Company XX has minimal appetite for liquidity risk.
- Company XX is required to maintain adequate liquid resources to meet both planned cash outflows and unexpected cash requirements under stress conditions, such as in natural catastrophe events.

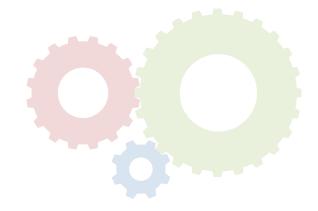


Operational/Other Risk Appetite 15th

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Risk Appetite

- Company XX has no tolerance for material or non-accidental compliance failures. Such events are expected to be identified and reported to relevant stakeholders in a timely manner.
- Company XX has no tolerance for financial crime or other criminal activities.
- Company XX has no tolerance for material outsourcing failures.
- Company XX has no tolerance for failure of material systems or processes which may cause prolonged business disruption beyond a reasonable time period.
- Company XX has minimal tolerance for reputational risk.





Risk Appetite













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Business Risk Profile

12:00 - 1:15 pm

Learning Objectives

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Business Risk Profile

- > This section covers the concept of risk and the elements of a business risk profile including:
 - 1. Risk identification
 - 2. Risk detailing of top risks
 - 3. Risk positioning
- ➤ At the end of this section, students will be able to have a better understanding of <u>relevant and material risks</u> and how the business risk profile is constructed.

Step 1: Risk Identification

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Business Risk Profile



What is considered a risk?

Definition of a risk

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Business Risk Profile – Risk Identification

➤ A risk is defined as something that may prevent the company from sustainable achievement of it's objectives, both in financial and non-financial terms.

Four perspectives:

- Financial
- Regulatory
- Reputational
- Business / Operational



Risk Identification

Business Risk Profile – Risk Identification

What is NOT considered a risk?

NOT a risk

Business Risk Profile - Risk Identification



'Causes' and 'Effects'

Risk **Effect** Cause Definite fact about operating / Uncertainty that could affect Contingent effect of risk on business environment business if it occurs business objective(s) Cigarette buds Loss of building Building burns down Lack of sprinklers • Insurance Claim Poor Storage Loss of business

NOT a risk

Business Risk Profile – Risk Identification

'To-do lists'

For example:



Risk: Risk of not having a roof / Risk of getting wet if it

rains

To-do: Build a roof



NOT a risk

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Business Risk Profile - Risk Identification

Compliance





Risks we are concerned about

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Business Risk Profile – Risk Identification



Impact Type



Business Risk Profile – Risk Identification



Financial

- Financial Loss to the company
- Affects P&L



Business / Operational

- Impacts Company's Operations
- Eg: Claims, Policy Writing, RI



<u>Reputational</u>

- Affects reputation of the company
- Eg: Media Exposure



<u>Regulatory</u>

• Sanctions / Fines to the company

Inherent vs Residual Risk

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Business Risk Profile – Risk Identification

inherent

/in'hiər(ə)nt,-'hɛr(ə)nt/ ◆)

Inherent Risks

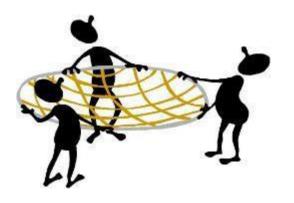
The risk that an activity would pose if *no controls* or other mitigating factors were in place. (The gross risk or risk before controls)





Residual Risks

The risk that remains *after controls* are taken into account. (The net risk or risk after controls)



What are the top risks?

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Business Risk Profile – Risk Identification



Step 2: Risk Detailing

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Business Risk Profile – Risk Detailing



Risk Description

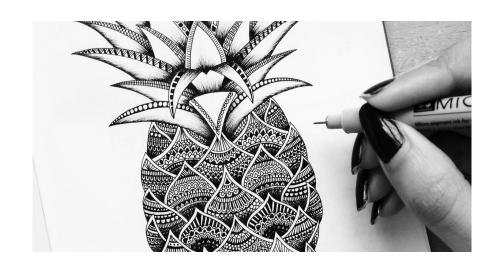
Business Risk Profile – Risk Detailing



Risk description should be specific, detailed and comprehensive in order for the reader to understand the nature of the risk.

It should include:

- > The risk
- Key causes
- Key consequences

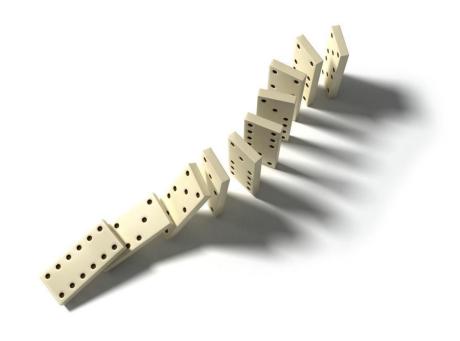


Causes and Consequences

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Business Risk Profile – Risk Detailing

Identify causes of the actual risk as well as possible effect of this risk on the business.



Risk Owner

Business Risk Profile – Risk Detailing





Impact Types

Business Risk Profile – Risk Detailing





<u>Financial</u>

- Financial Loss to the company
- Affects P&L



Business / Operational

- Impacts Company's Operations
- Eg: Claims, Policy Writing, RI



<u>Reputational</u>

- Affects reputation of the company
- Eg: Media Exposure



<u>Regulatory</u>

• Sanctions / Fines to the company

Key Risk Indicator (KRI)



Business Risk Profile – Risk Detailing

- An indicator which is used by organisations to help <u>define its</u> <u>risk profile and monitor changes</u> in that profile.
 - ➤ How is our risk profile changing?
 - > Is it within our desired tolerance levels?



Key Control Indicator (KCI)



Business Risk Profile – Risk Detailing

- An indicator which is used by organisations to help <u>define its</u> <u>controls environment and monitor levels of control</u> relative to desired tolerances
 - ➤ Are our organisation's internal controls effective?
 - > Are we 'in control'?



Risk Detailing

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Business Risk Profile – Risk Detailing



Step 3: Risk Positioning

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Business Risk Profile – Risk Positioning

Risk Positioning Objective

➤ To position the risks <u>relative</u> to one another on the risk bubble map.

Some risks are subjective and may not be easily quantified, hence we rely on relativity.





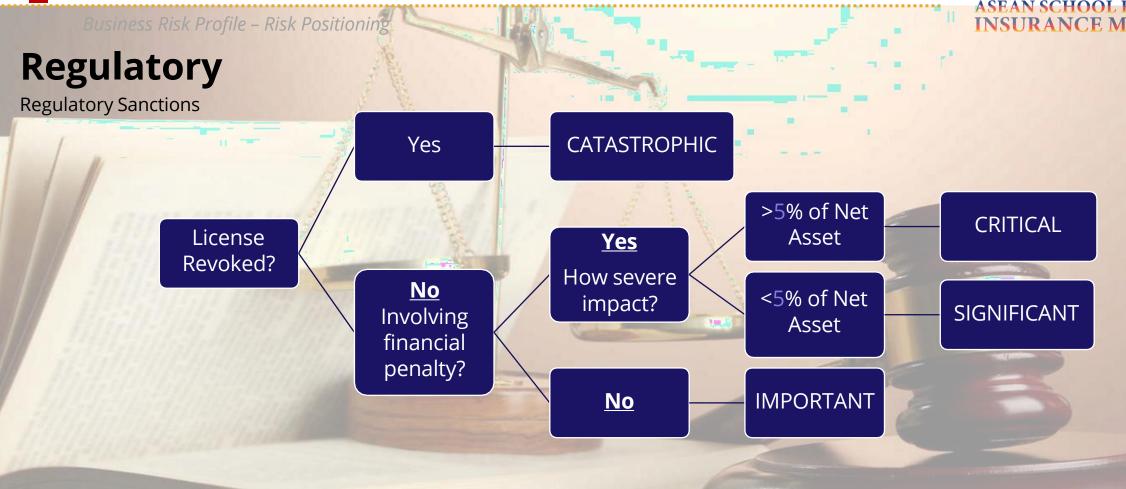
Business Risk Profile – Risk Positioning

	Financial	Regulatory	Reputational	Operational
Catastrophic	Severe loss in capital, resulting in statutory insolvency and requiring an immediate capital injection; and/or Permanent loss in gross premium in excess of 50 per cent of the total portfolio	Regulatory sanctions resulting in a <u>revocation of</u> insurance license or a <u>temporary cessation of new business</u>	Immediate and permanent damages to the reputation and trust of the company involving the media, leading to a loss of confidence from customers, intermediaries, business partners and shareholders	Immediate and prolonged¹ disruption on critical² systems, processes and/or people with impact on the entity's ability to function as an insurance service provider
Critical	Material impact on the financial condition of the business unit; however <u>unlikely to result in statutory insolvency</u> ; or <u>Temporary insolvency without loss of capital</u> ; and/or Permanent loss in gross premium in <u>excess of 20 per cent</u> of the total portfolio	Regulatory sanctions resulting in a <u>financial</u> penalty in excess of 5 per cent of net asset	Negative impact to the reputation and trust of the company involving the media, leading to a loss of confidence from customers, intermediaries, business partners and/or shareholders; however recoverable at a considerable cost	Disruption on <u>critical systems</u> , <u>processes and/or people</u> with impact on the entity's ability to function as an insurance service provider
Significant	Adverse impact on the financial performance of the business unit that will make it <u>difficult to</u> achieve the overall business plan	Regulatory sanctions resulting in <u>financial</u> <u>penalties of less than 5 per</u> <u>cent of net asset</u>	Negative impact to the reputation and trust of the company, including <u>a viral effect on social media</u> , leading to a loss of confidence from a <u>segment</u> of customers, intermediaries, business partners and/or shareholders; however <u>recoverable</u> with time and PR <u>support</u>	Immediate and prolonged disruption/impact on non-critical systems, processes and/or people
Important	Adverse impact on the financial performance of the business unit; however <u>recoverable</u> and <u>will not threaten the</u> performance against the overall <u>business plan</u>	Regulatory sanctions <u>not</u> involving financial penalties	Negative impact to the reputation and trust of the company leading to a loss of confidence from customers, intermediaries, business partners and/or shareholders	Disruption/impact on <u>non-critical</u> <u>systems</u> , processes and/or people









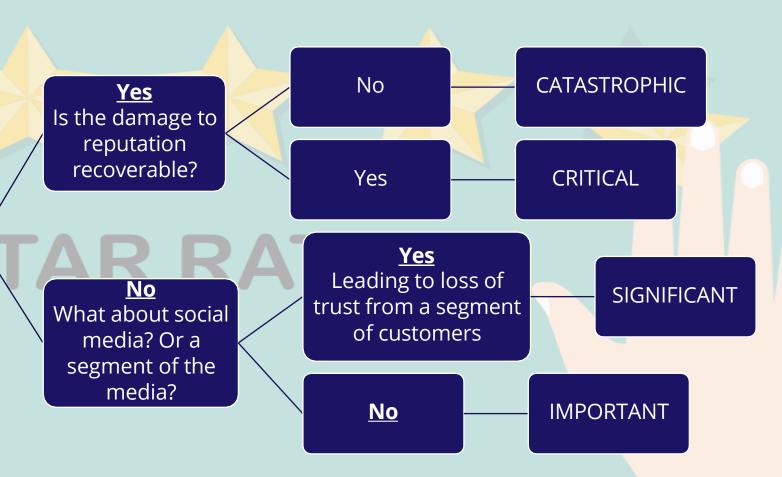


Business Risk Profile – Risk Positioning

Reputational

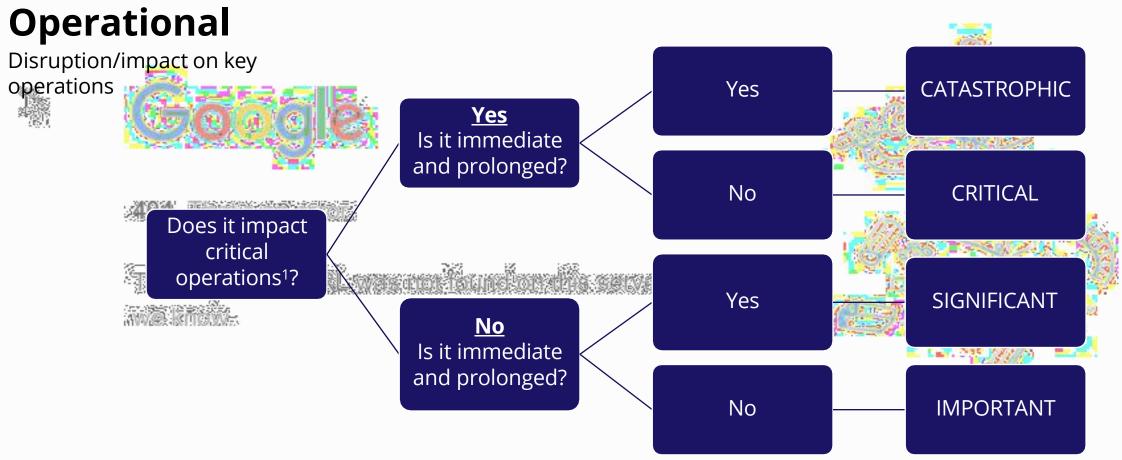
Negative impact to the reputation and trust of the company leading to a loss of confidence from customers, intermediaries, business partners and/or shareholders

Does it involve ALL media?





Business Risk Profile - Risk Positioning



Sample Likelihood Definitions 15th

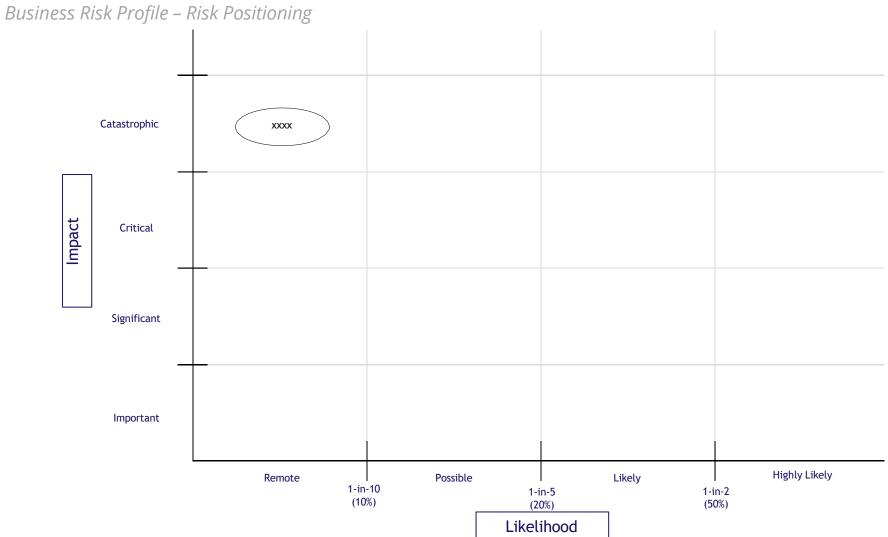


Business Risk Profile – Risk Positioning

Probability of occurrence in 12 months	Event Likelihood	
Remote	<10%	Lower than 1-in-10 years
Possible	Up to 20%	1-in-5 years
Likely	Up to 50%	1-in-2 years
Highly Likely	>50%	Higher than 1-in-2 years

Sample Grid





Sample Colour Definitions



Business Risk Profile – Risk Positioning

Colours to represent the <u>only one</u> aspect of risk – i.e. Management's assessment of the control effectiveness

Green: Fully effective controls

Management believes controls are effective and reliable. "Nothing more to be done except review and monitor the existing controls"

Yellow: Largely effective controls

Most controls are designed correctly, are in place and effective. Some more work to be done to improve effectiveness or management has some doubts about operational effectiveness and reliability. "Most things in place and working, but some more still to be done"

Orange: Partially effective controls

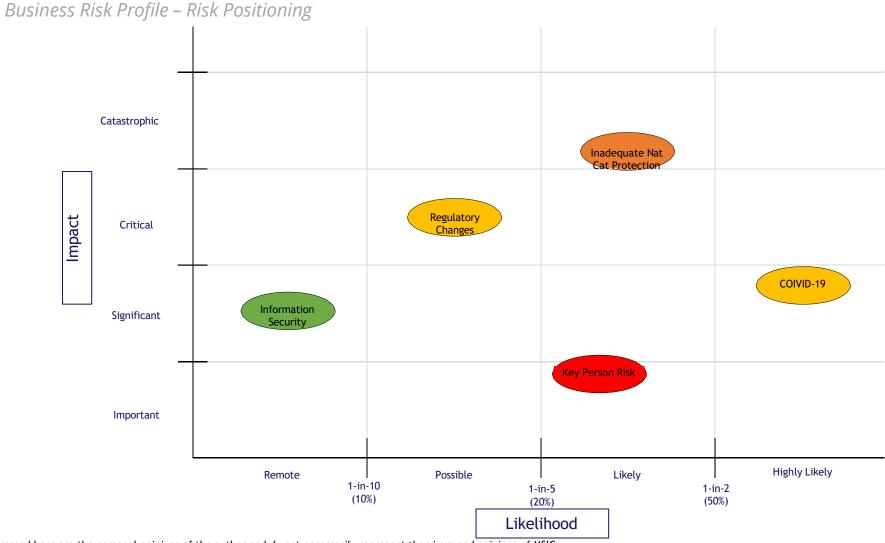
Some controls in place but are only partially effective with potentially material gaps. "About half way there"

Red: No or ineffective controls

No credible control or management has no confidence that any degree of control is being achieved due to poor control design or very limited operational effectiveness. "Just getting started"

Sample Risk Profile





QnA

Business Risk Profile













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Lunch

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