State Bank of Pakistan

Operational Risk Appetite – from concept to practical implementation

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Ernst & Young
Quality In Everything We Do

Background to operational risk

What is operational risk

An operational risk is an adverse event or outcome, which occurs as a consequence of a organisation's activity.

A widely used definition of operational risk is the one contained in the Basel II regulations.

‘Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events.’

Financial versus operational risks

Risk type	Description	Benefit
Credit risk	The risk of loss of principal or loss of a financial reward stemming from a borrower's failure to repay a loan or otherwise meet a contractual obligation.	Interest Income
Market risk	The possibility for an investor to experience losses due to factors that affect the overall performance of the financial markets.	Increase in value of investments or FX
Operational risk	The risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events.	???

- ❑ **No reward unlike credit or market risk**
- ❑ **Inevitable due to the fact that banks need to operate / process**
- ❑ **As a result of people, processes, systems & external events**

Cause, event & consequence

CAUSES

- Inadequate segregation of duties
- Insufficient training
- Lack of management supervision
- Inadequate auditing procedures
- Inadequate security measures
- •
- •
- •
- Poor systems design
- Poor HR policies

EVENTS

- Internal Fraud
- External Fraud
- Employment Practices & Workplace Safety
- Clients, Products & Business Practices
- Damage to Physical Assets
- Business Disruption & System Failures
- Execution, Delivery & Process Management

CONSEQUENCES

- Legal Liability
- Regulatory, Compliance & Taxation Penalties
- Loss or Damage to Assets
- Restitution
- Loss of Recourse
- Write-down

EFFECTS
Monetary Losses

- Reputation
- Business Interruption

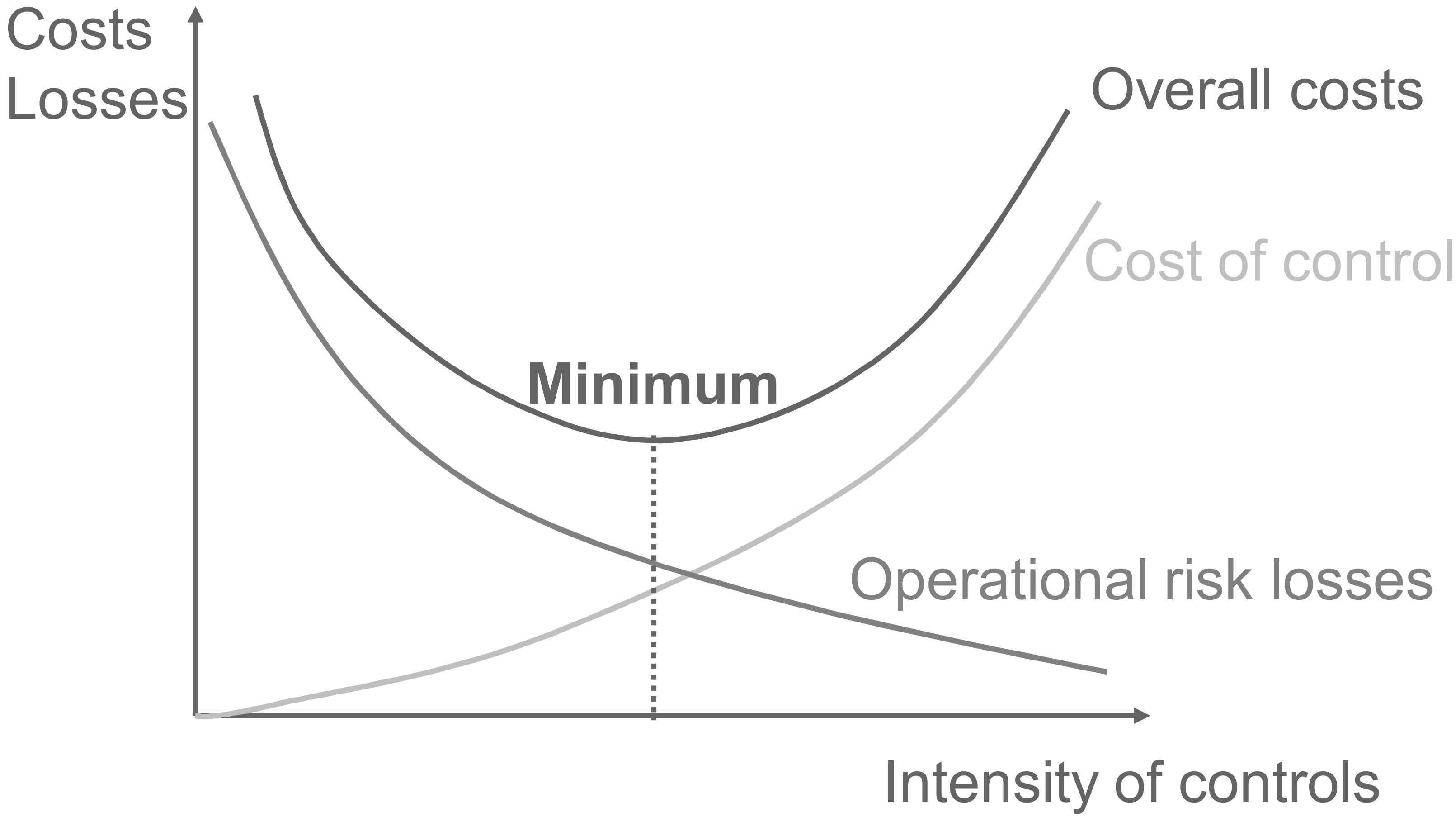
OTHER IMPACTS
Forgone Income

Typical objective for the management of operational risk

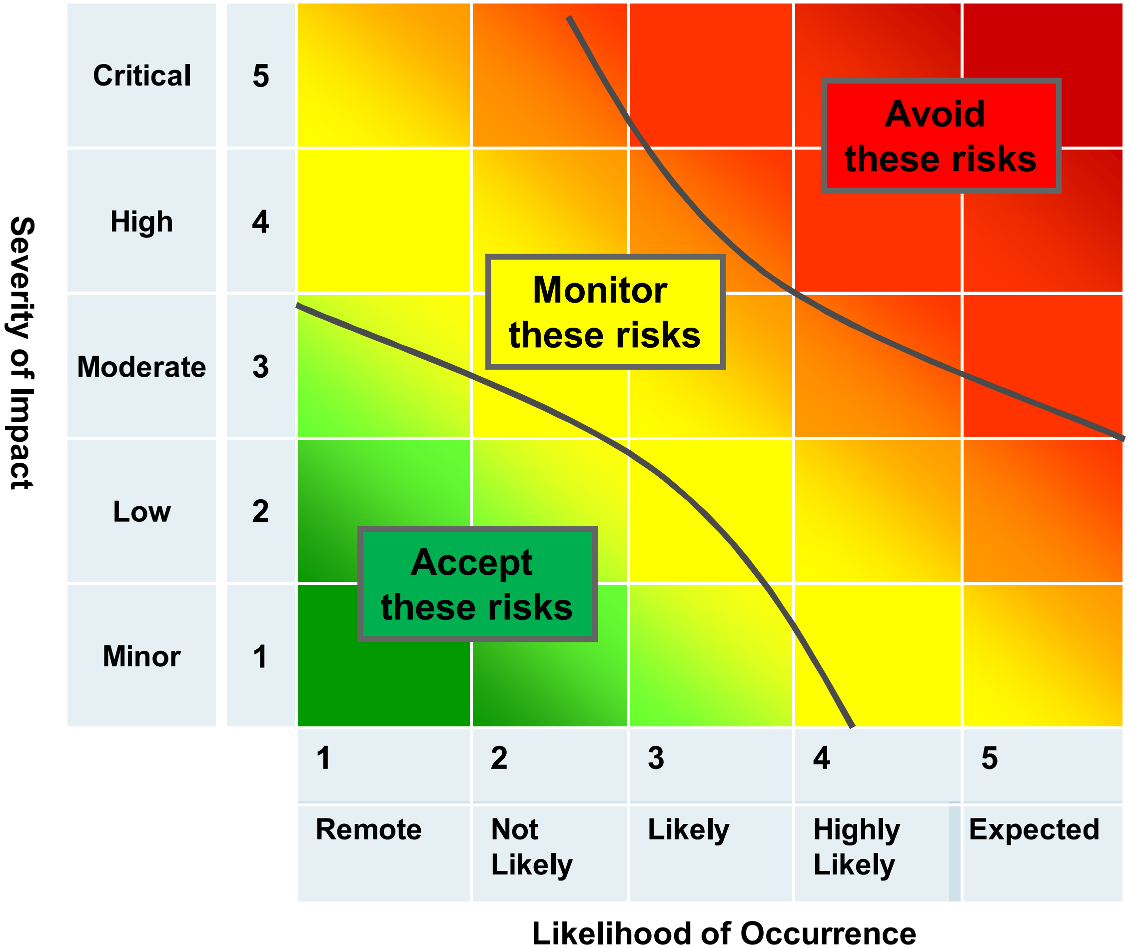
'The purpose of the ORM Framework is not to eliminate risks, but to contain them within acceptable levels, as determined by senior management, and to ensure that the Bank has sufficient information to make informed decisions about additional controls, adjustments to existing controls or other risk mitigation efforts.'

- **This is a cost benefit analysis – understand what risks you are exposed to and manage them appropriately**

Operational risk management should aim to optimise the loss versus control trade off



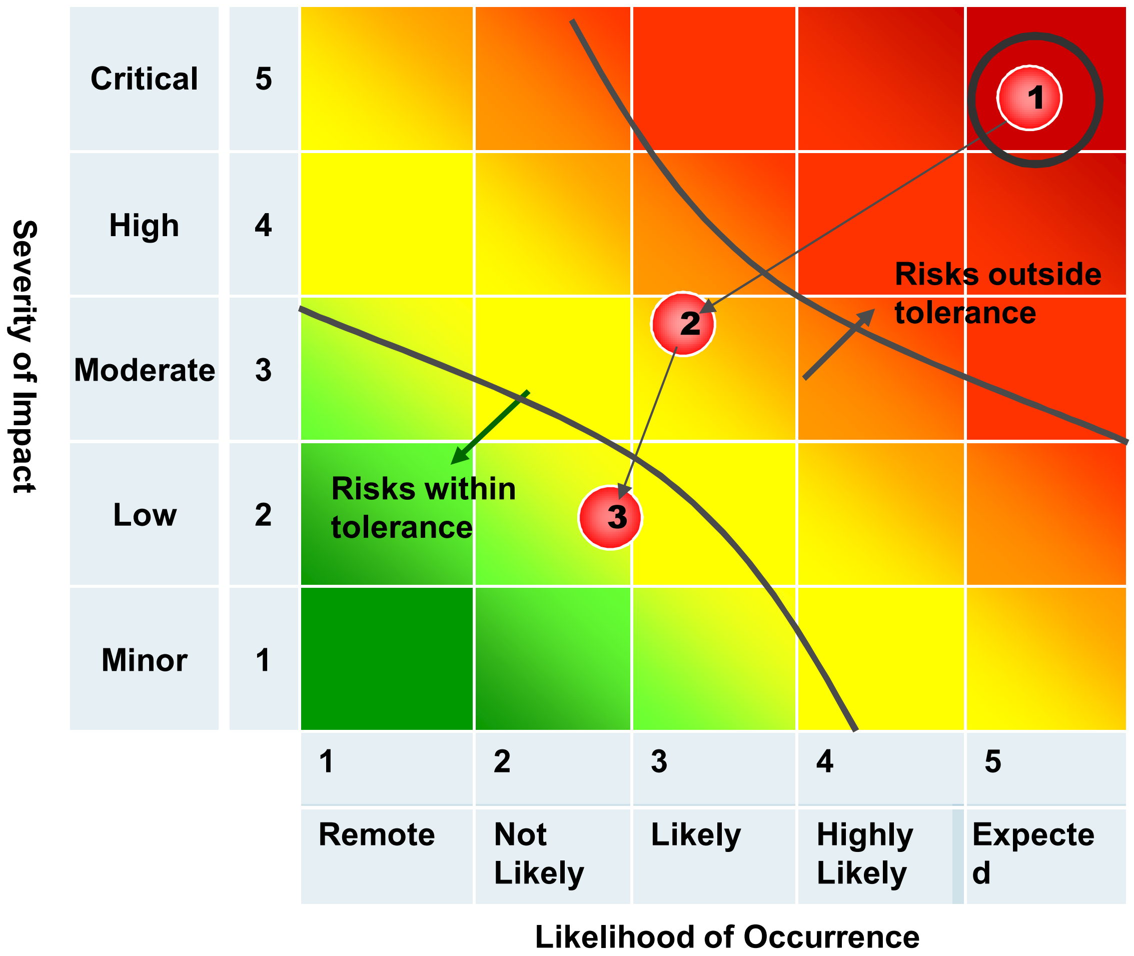
Risk tolerance – typical industry approach



Avoid these risks	Change processes / controls. Develop action plans Relevant department should take responsibility and ORM should monitor progress
Monitor these risks	Monitor through Key indicators and operational losses to ensure risk exposure doesn't exceed acceptable levels
Accept these risks	Low priority areas can be fixed as a priority for the concerned department but a low priority issue for the Board

- **Will the Board be involved in setting an appetite for individual risks? A head of department perhaps? So how should a Board approved risk appetite statement be framed?**

Criticality of controls



If controls fail or are deemed unreliable, residual = inherent!

Illustrative Example

1 Inherent Risk

2 Residual Risk

3 Target Risk Level

Risk appetite

Principles for the Sound Management of Operational Risk, June 2011 – Bank of International Settlements

Principle 4: The board of directors should approve and review a risk appetite and tolerance statement for operational risk that articulates the nature, types, and levels of operational risk that the bank is willing to assume.

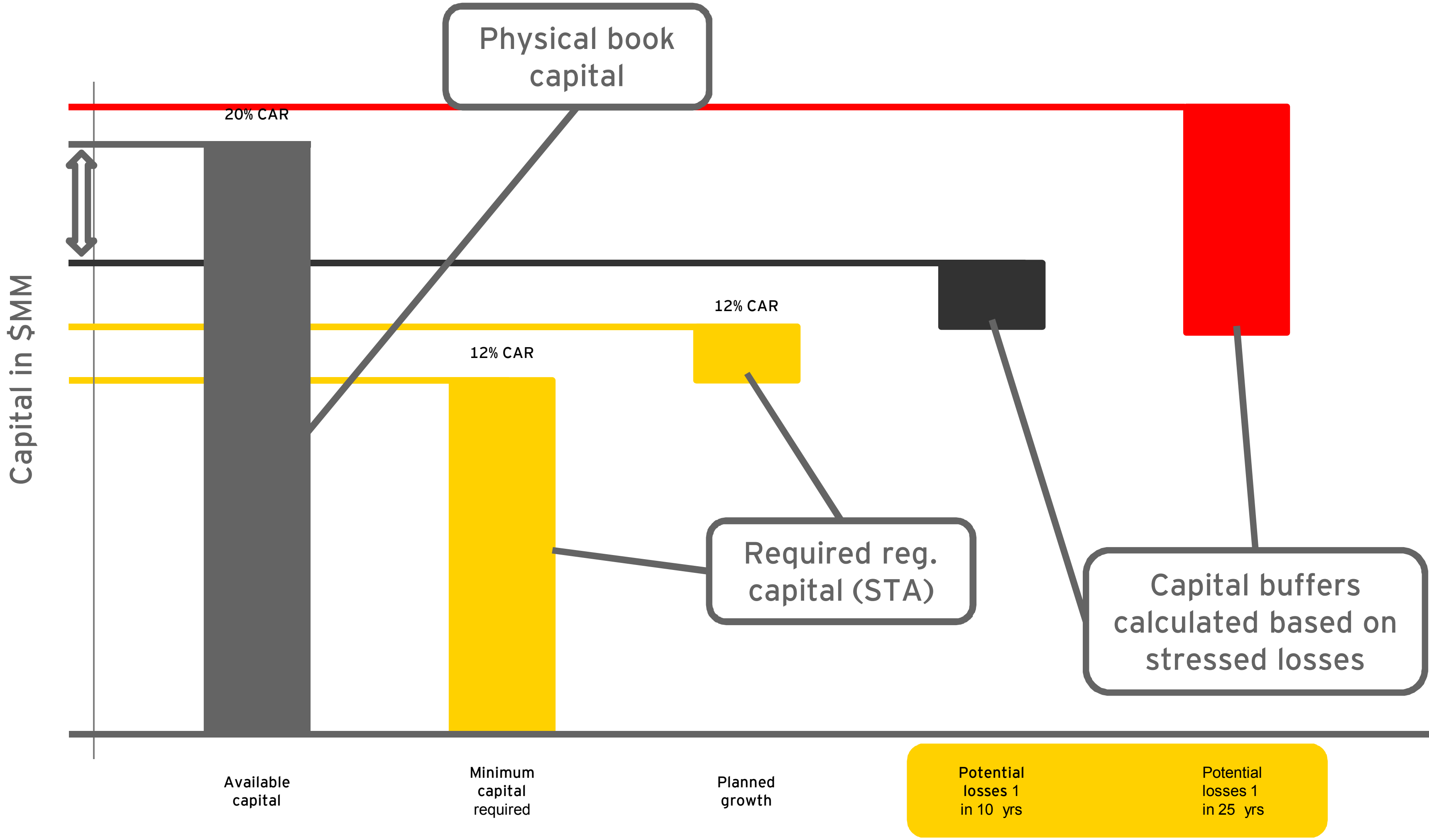
”Risk appetite” is a high level determination of how much risk a firm is willing to accept taking into account the risk/return attributes; it is often taken as a forward looking view of risk acceptance. ”Risk tolerance” is a more specific determination of the level of variation a bank is willing to accept around business objectives that is often considered to be the amount of risk a bank is prepared to accept.

Principle 5: Senior management should develop for approval by the board of directors a clear, effective and robust governance structure with well defined, transparent and consistent lines of responsibility. Senior management is responsible for consistently implementing and maintaining throughout the organisation policies, processes and systems for managing operational risk in all of the bank’s material products, activities, processes and systems consistent with the risk appetite and tolerance.

Role of the Board

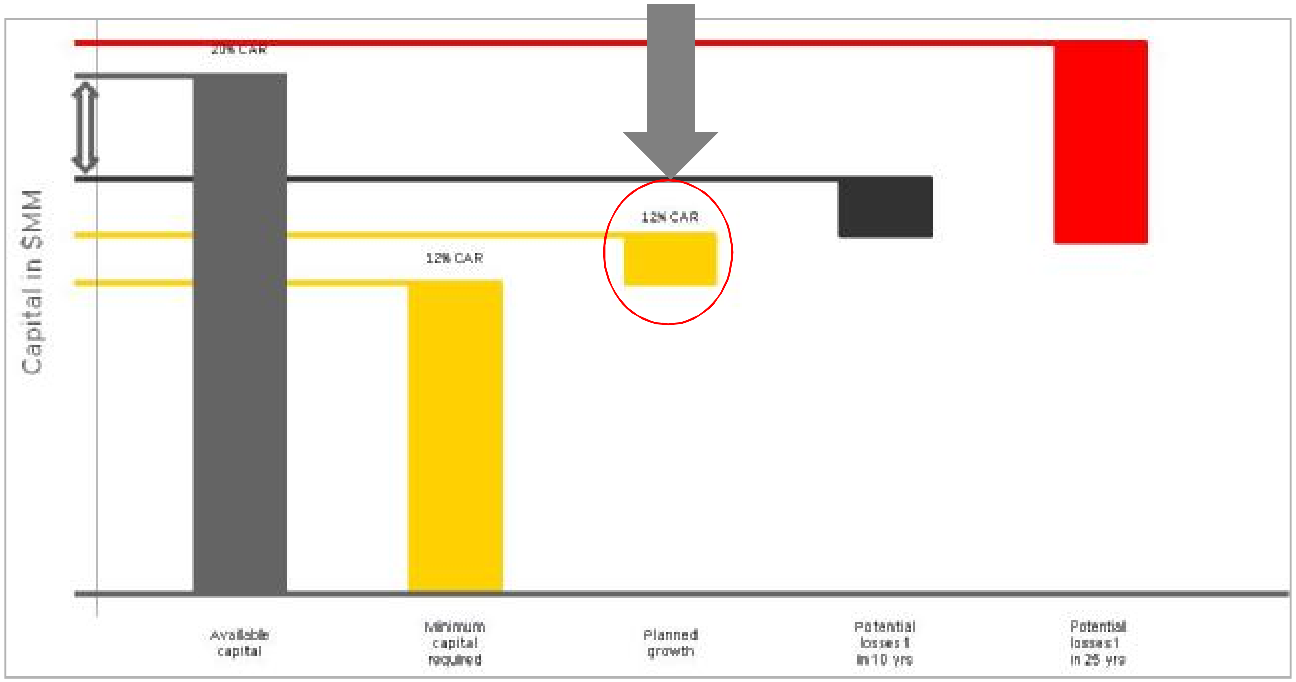
- The Board cannot set an appetite for each operational risk but can set a risk appetite in terms of economic capital and stressed losses given extreme events and the likelihood of control failure.
- The Board should ensure that senior management establishes strong accountability structures to translate the risk appetite framework into clear incentives and constraints for business lines
- Positive incentives can include career advancement and compensation, for individuals demonstrating strong risk management abilities, helps promote a risk culture consistent with the risk appetite framework.

Typically a BoD will set risk appetite in terms of EcoCap or survival time horizon



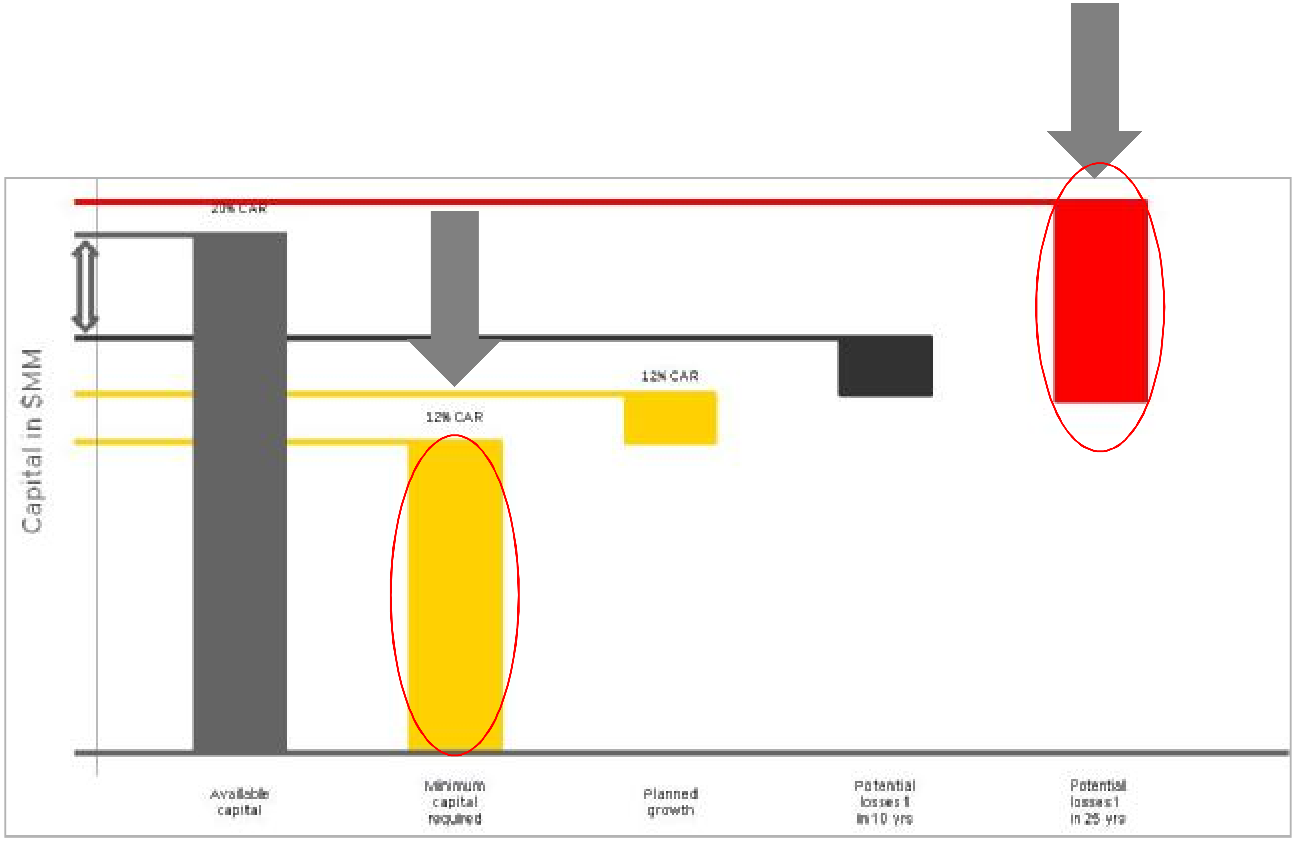
Option 1: Reduce planned growth

- Potentially impacts strategy and market share



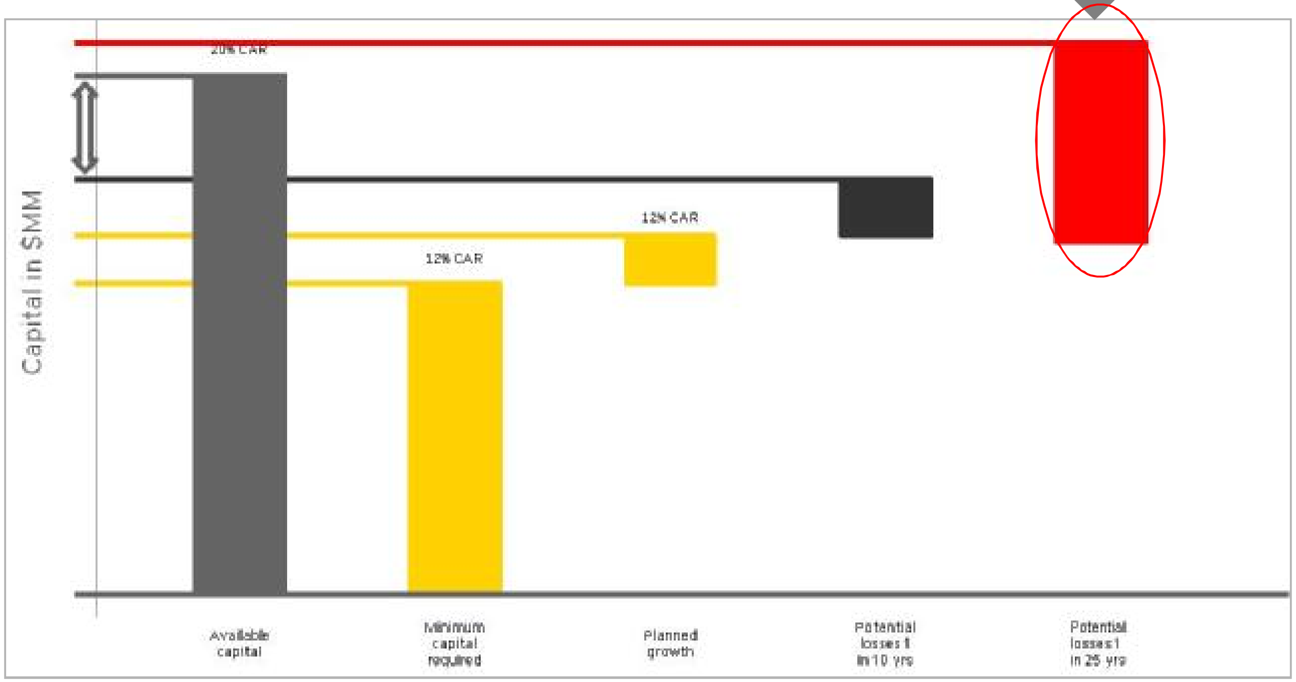
Option 2: De-risk the balance sheet (credit and market)

- Potentially leading to reduced profitability

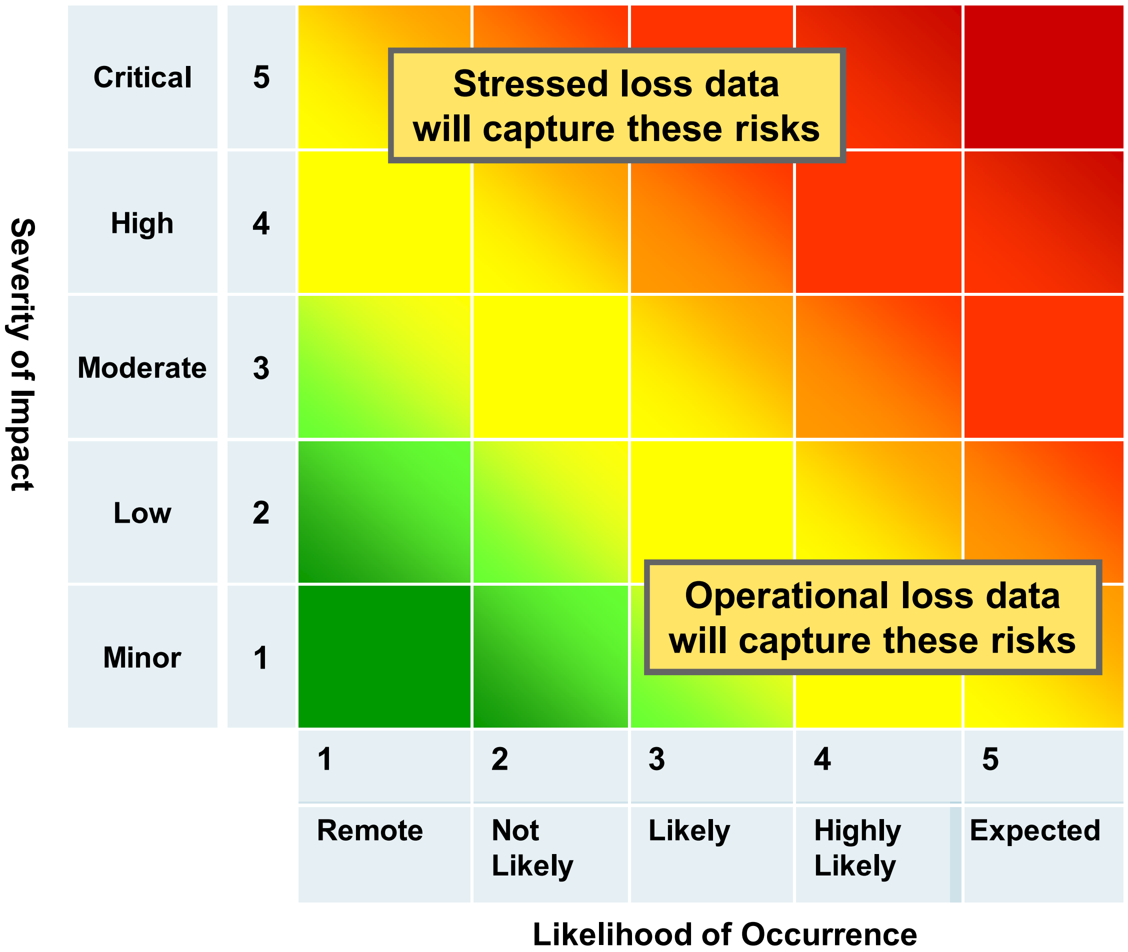


Option 3: Improve controls for high impact low likelihood op risks

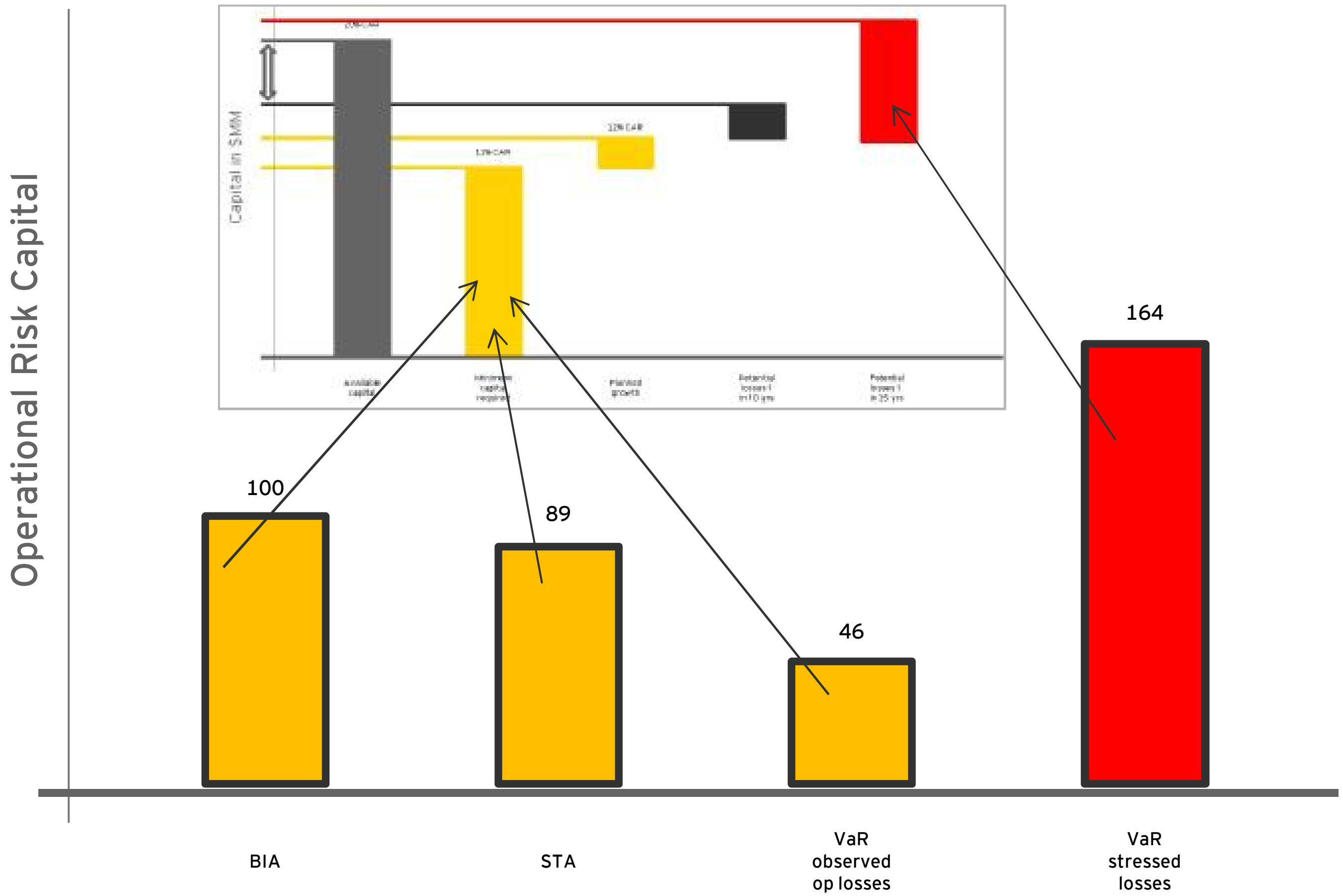
- By improving controls of high impact (possibly low likelihood) operational risks, the bank can reduce stressed losses
- Note that the bank has less ability to reduce the impact of credit and market stresses without changing asset structure and current profitability
- Overall result is reducing the volatility of earnings



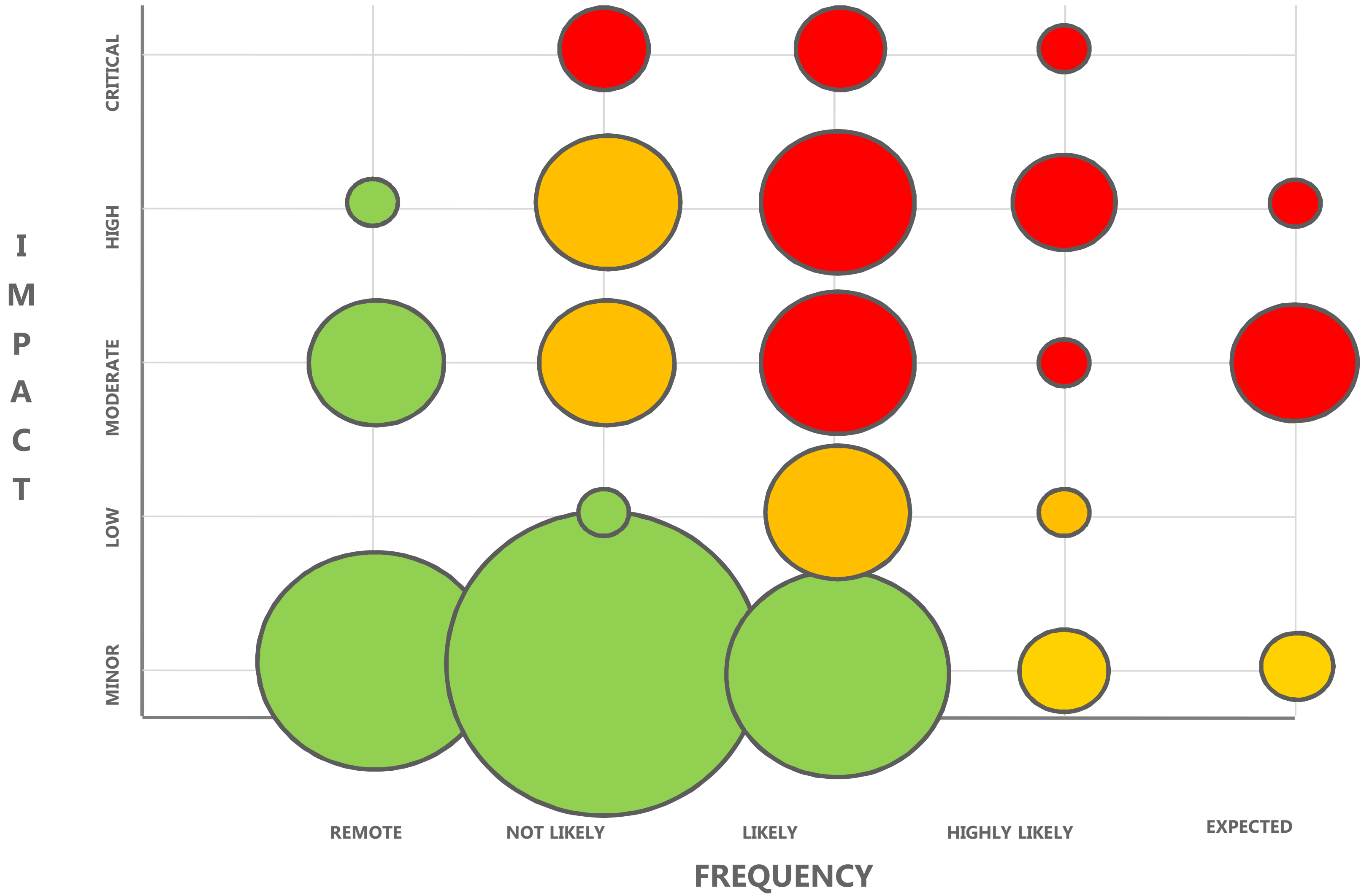
Advanced models will give varying results



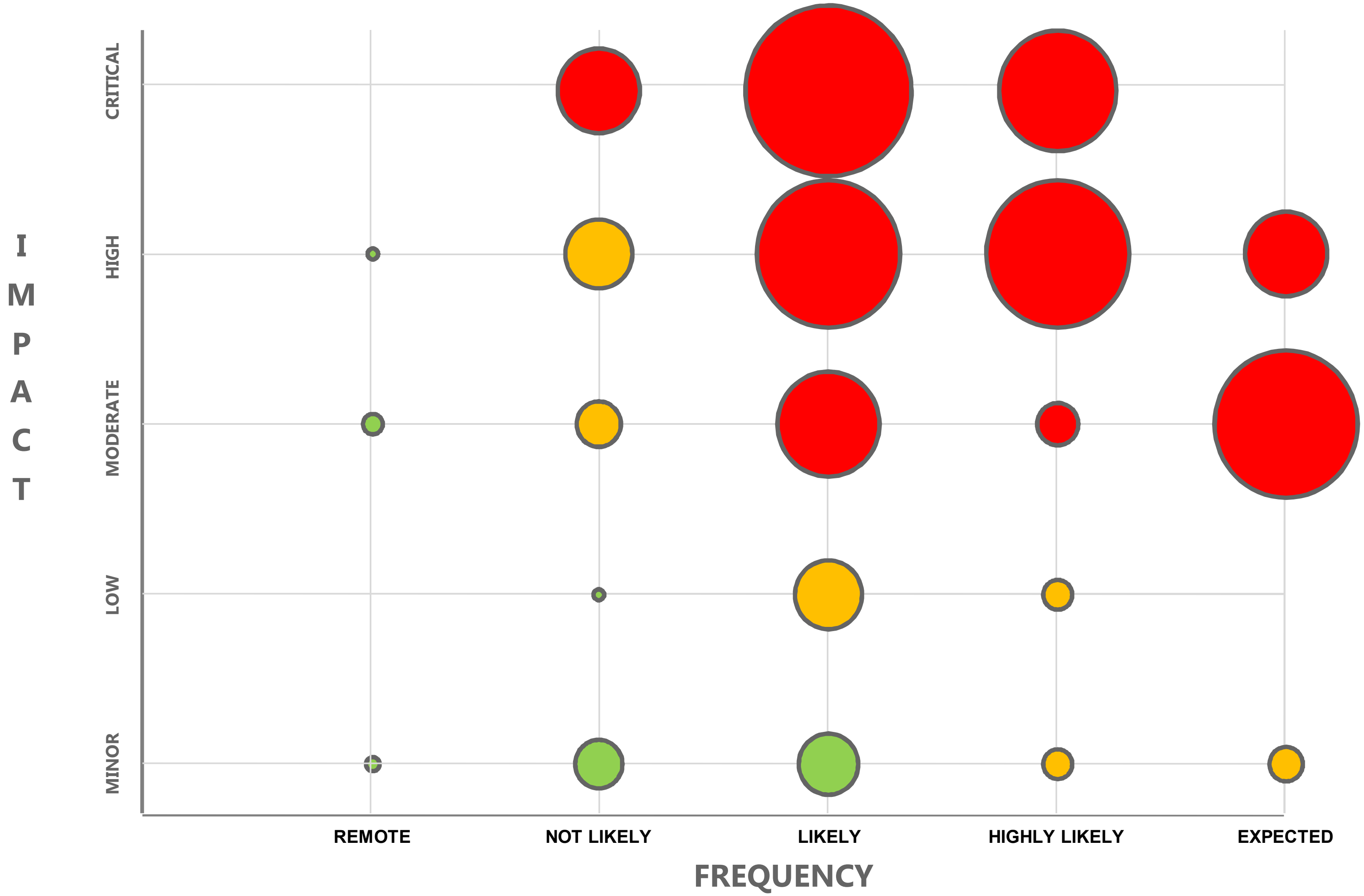
Typically a BoD will set risk appetite in terms of EcoCap & survival time horizon



Case study: Residual risks (number of risks)



Case study: Residual risk exposure (expected losses)



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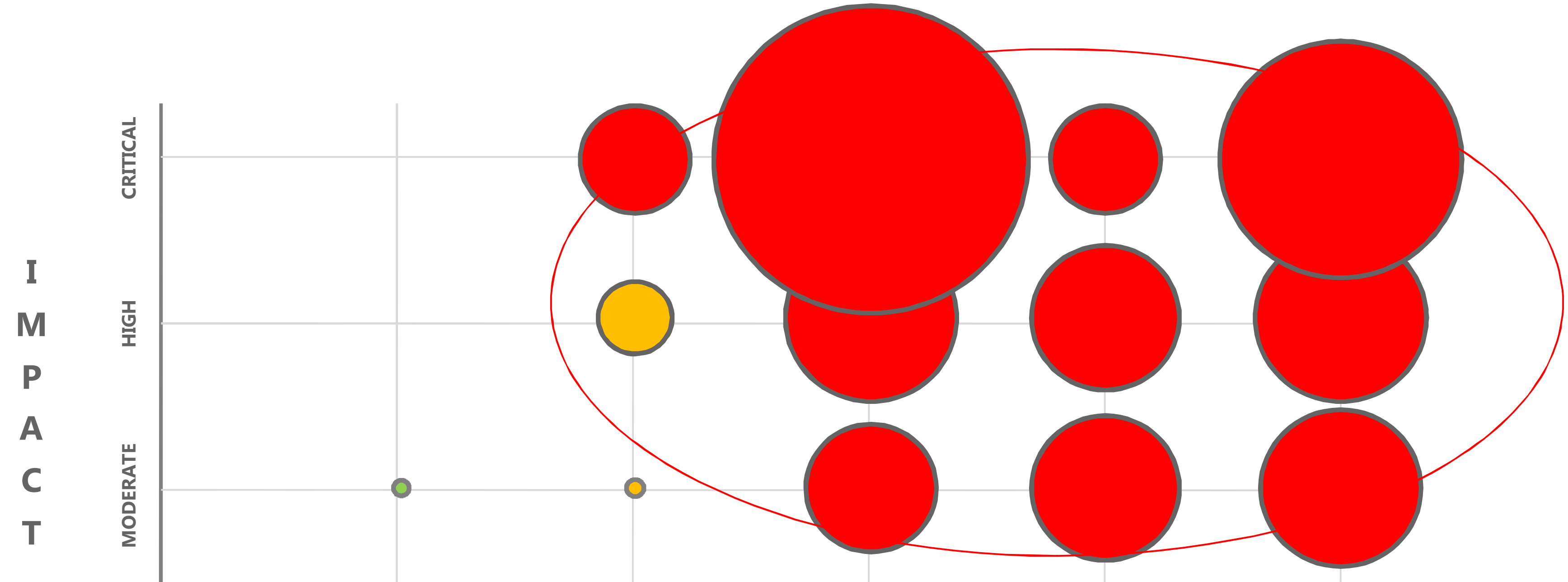
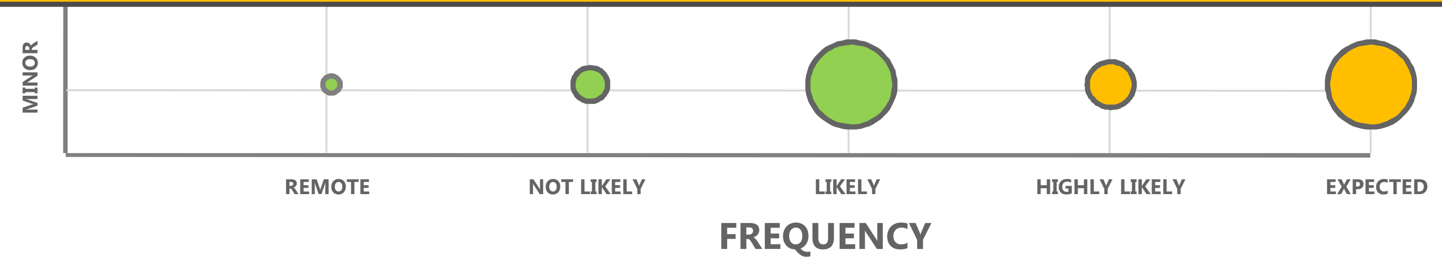
Case study: Residual risk exposure (stressed losses)



❑By targetting and ‘treating’ the risks that lead to the largest levels of potential losses, you can reduce operational risk to within ‘acceptable levels’



Typical objective for the management of operational risk

'The purpose of the ORM Framework is not to eliminate risks, but to contain them within acceptable levels, as determined by senior management, and to ensure that the Bank has sufficient information to make informed decisions about additional controls, adjustments to existing controls or other risk mitigation efforts.'

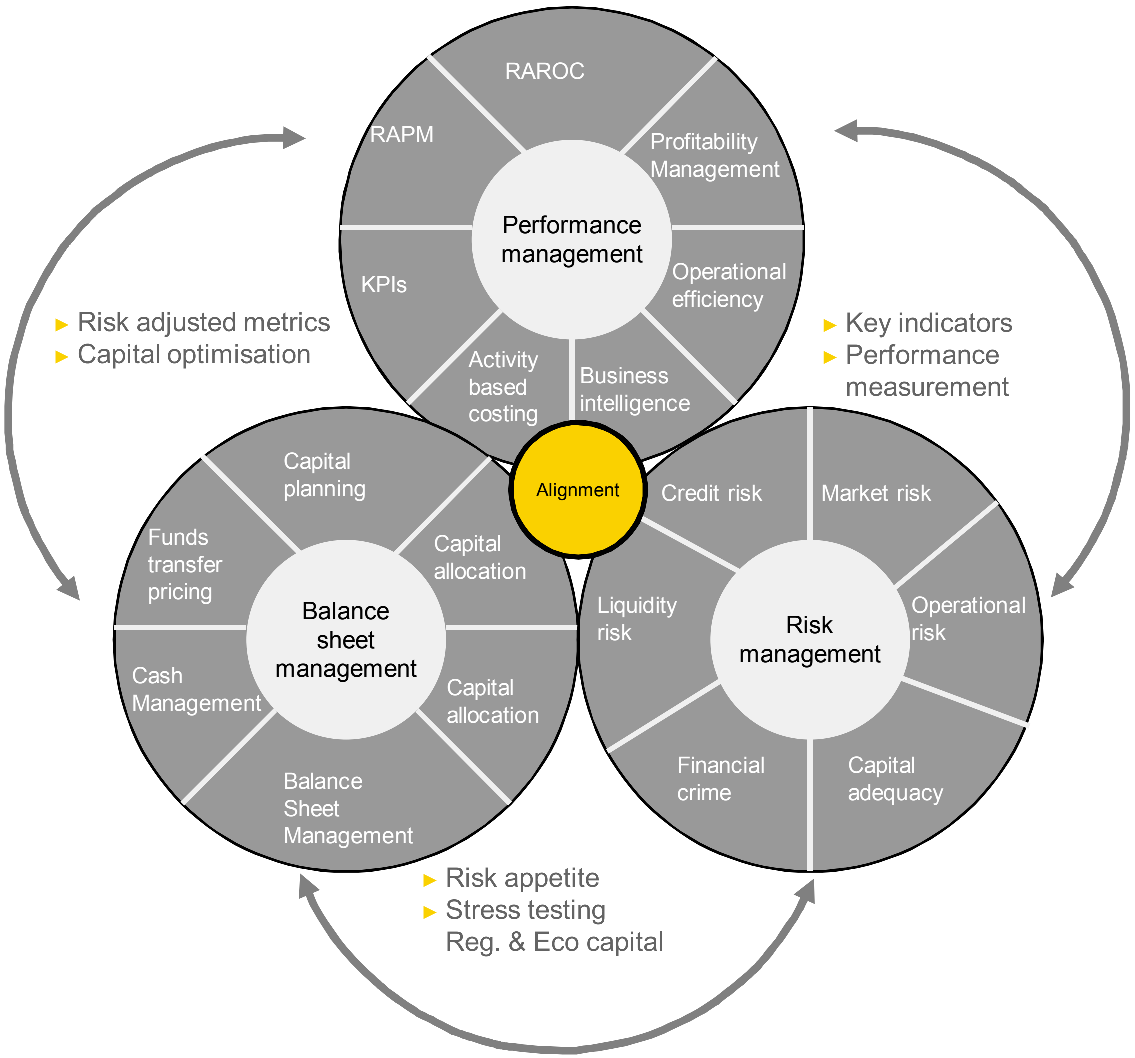
- **Setting risk appetite is the responsibility of the Board**
- **Senior management s required to control operational risk with the overall boundaries set by the Board**

Carrot and stick approach required to embed this within culture

- Positive incentives can include career advancement for individuals demonstrating strong risk management abilities, helps promote a risk culture consistent with the risk appetite framework.

- Negative incentives can include lower compensation for individuals that do not lower operational risk levels to acceptable levels

Aligning risk management & balance sheet management to performance management is the key



Requirements and action plan

- Understand the extent of stressed losses the Board wants the Bank to be able to survive and remain a going concern to develop a bank wide risk appetite statement
- Develop measurement techniques to determine stressed operational risk losses
- Assess if these losses are 'acceptable' – i.e. are they within the appetite set by the Board
- Target departments and major processes which expose the Bank to high levels of operational risk
- Treat these risks
- Embed this into culture by applying the 'carrot and stick' approach

Thank you

Questions?

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