Emerging Leaders Program:

Risk Identification

Lois Tullo
Executive in Residence

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ERM Framework
Risk Identification

Risk Identification - Model

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Risk Identification as an Element of the GRI ERM Model

APPETITE

The risk identification process importantly ties back to the **risk appetite** process discussed in the previous session. Once risks are thoroughly identified, management and the board will set appetite levels/limits for risk assumption given the strategies and resources of the firm.

At the initial stages, a wide net is cast to understand the universe of risks making up the enterprise's risk profile. While each risk captured may be important to management at the function and business unit level, the list requires prioritization to focus senior management and board attention on key risks. This prioritization is accomplished by performing the **risk assessment** (which is the next element in the GRI ERM model).

ASSESS

Adapted from: COSO (Committee of Sponsoring Organizations of the Treadway Commission, Risk Assessment in Practice, 2012.

Strategy & Risk Identification

Strategy – SWOT Analysis

Strengths	**Weaknesses**
Opportunities	**Threats**

Offers Strategic insights to Risk Identification

Risk Identification

The **risk (or event) identification** process produces a comprehensive list of risks (and often opportunities as well), organized by risk category (financial, operational, strategic, nonfinancial/emerging) and sub-category (market, credit, liquidity, etc.) for business units, corporate functions, and capital projects.

Adapted from: COSO (Committee of Sponsoring Organizations of the Treadway Commission, Risk Assessment in Practice, 2012.

ERM Model: Risk Identification

RISK IDENTIFICATION

RISK IDENTIFICATION is the process of determining events and/or uncertainties that could potentially effect the:

- Assets – loans and investments
- Liabilities – funding/liquidity, claims/commitments
- program / project
- Enterprise / reputation

from achieving its objectives.

RISK IDENTIFICATION is oftentimes the hardest part … once you identify the risk(s) and you are aware, you can work them through the process.

Defining Inherent Risk and Residual (Net) Risk

Inherent Risk is the **risk** to an entity in the absence of any actions management might take to alter either the **risk's** likelihood or impact.

Residual Risk is the **risk** remaining after management's response to the **risk**.

Source: COSO, Enterprise Risk Management – Integrated Framework, 2004

Residual Risk – **risk** remaining after risk treatment (or mitigation)

Source: ISO 31000:2009, Risk Management – Principles and Guidelines

Residual Risk

Once all risks have been identified, catalogued, evaluated and mitigated, the firm is left with its residual risk position

1. Are we comfortable with this inventory of risk?
2. Are we comfortable that our risk limits, controls and mitigation steps have resulted in an acceptable risk position?
3. Do all risks have a identified owner – do we know that roles and responsibilities of the three lines of defense?
4. Are we within our Risk Appetite?
   - By business? By risk category?
5. Are there further steps we can take to mitigate risks?
   - Should we build up higher capital or liquidity levels?
   - Should we consider macro hedging positions (perhaps even deep out of the money options) to groom our risk profile

Risk Inventory

Developing a Risk Inventory

- A Risk Inventory is a formal, systematic detailing of all of a firm's materials risks
  - A single document categorized by business and risk category
  - Reviewed with the business and other control groups
  - Updated annually

- For each business and risk category, detail the nature and level of the risk
  - Along with key controls
  - Also including any audit or regulatory issues / deficiencies

- Over the next few pages, we develop out a simple illustration of a Risk Inventory
  - The first page highlights the material risks identified in each of the businesses

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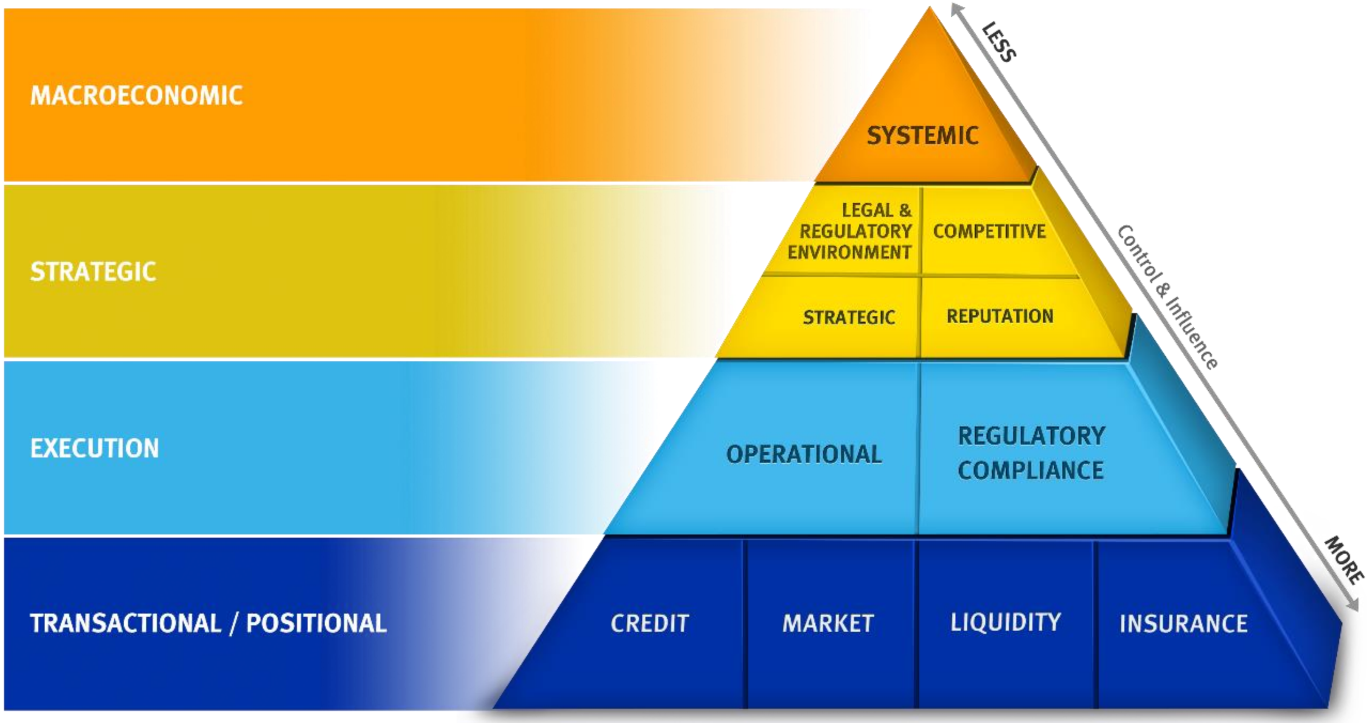
Categories withing Risk Inventory



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Developing a Risk Inventory – Linkage to Key Controls

- In a more detailed Risk Inventory, each cell will also include a listing of the key controls in place to mitigate the risk
  - Including when the control was last tested, and any issues identified
  - Also including reference to the most recent audit and regulatory reviews, the date completed and any issues / deficiencies / finding
    - Including action plan and timeline for when they will be closed

- See following page for a build out of the example, again focusing on the Retail Banking – Deposit business line

Sources of a Risk Inventory

The BSBC has asked banks to rate and describe the extent to which they have implemented the following risk identification and assessment tools:

(a) audit findings (R63–R65);

(b) internal loss data collection and analysis (R66–R72);

(c) external data collection and analysis (R73–R75);

(d) risk and control self-assessments (R76–R81);

(e) business process mapping (R82–R84); (f) risk and performance indicators (R85–R90);

(g) scenario analysis (R91–R95);

(h) comparative analysis (R100 and 101); and

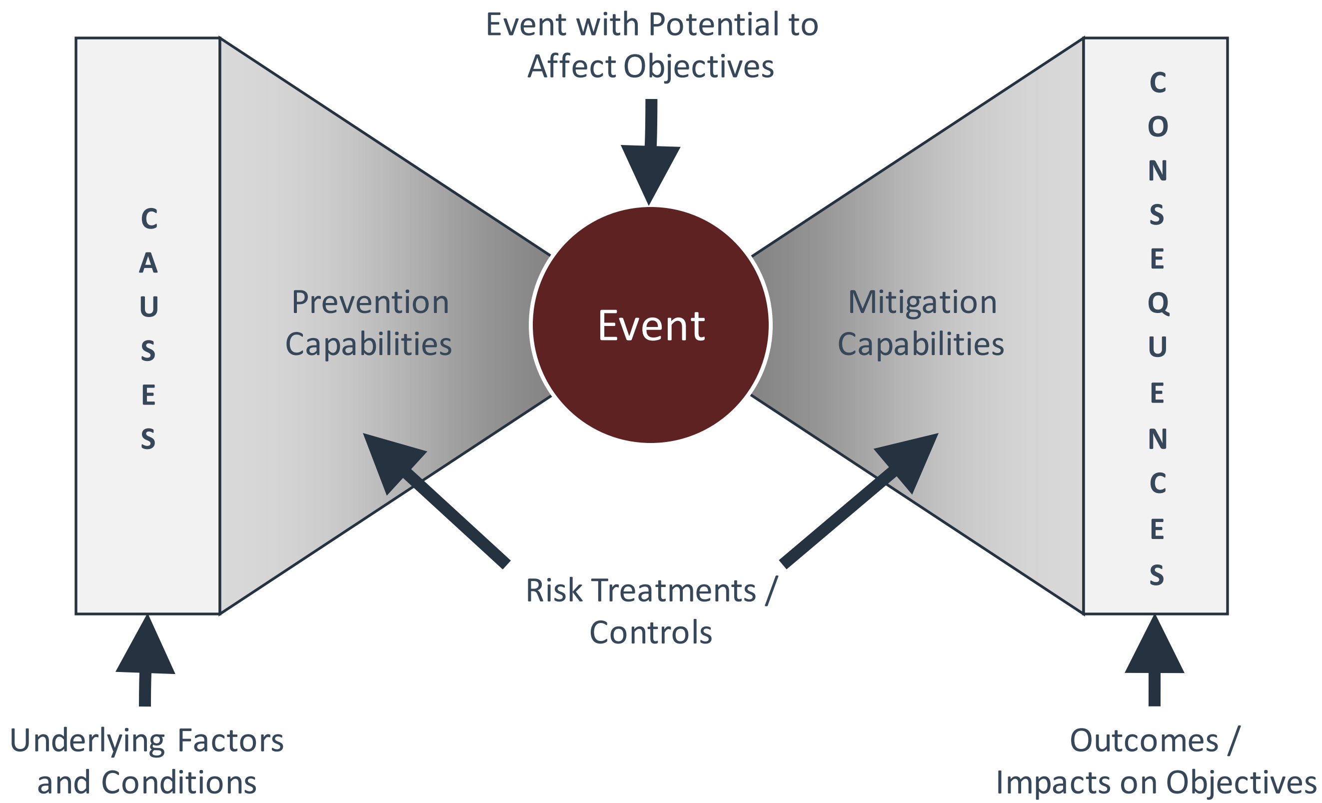
(i) other risk identification and assessment activities such as external benchmarking and creation and monitoring of action plans (R102 and R106).

Key Risk Indicators

Risk Indicators

The Bowtie Model

…. differentiating causes, events and consequences



Risk Indicators

The Bowtie Model

…. differentiating factors, events and consequences

Understanding the relationship between:

- A *risk factor* (also called a cause or issue or underlying condition), which is the precursor of a risk event

- A *risk event* (also called a problem or opportunity) that occurs when a risk becomes manifest

- A *consequence* (also called outcome) that results when a risk transcends from possibility to actuality.

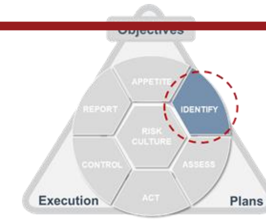
Key Risk Indicators

Key risk indicators can sharpen the focus on changing risk exposures and emerging risks

Key Risk Indicators (KRIs) are metrics used by organizations to provide an early signal of increasing risk exposures in various areas of the enterprise.
COSO (Committee of Sponsoring Organizations of the Treadway Commission), Developing Key Risk Indicators to Strengthen Enterprise Risk Management, 2010.

Key Risk Indicators (KRIs) can warn management and the board of evolving issues that may increase or reduce risks, and should be developed and factored into risk discussions and analyses.
John Fraser, The Challenges and Solutions for Implementing Enterprise Risk Management, upcoming publication, 2016.

How to identify the leading indicators of risk events?



<u>EXAMPLE:</u>
KRIs to inform risk of debt covenant default

It shows the linkage of KRIs to both root cause events and intermediate events

Emerging / Nonfinancial Risks

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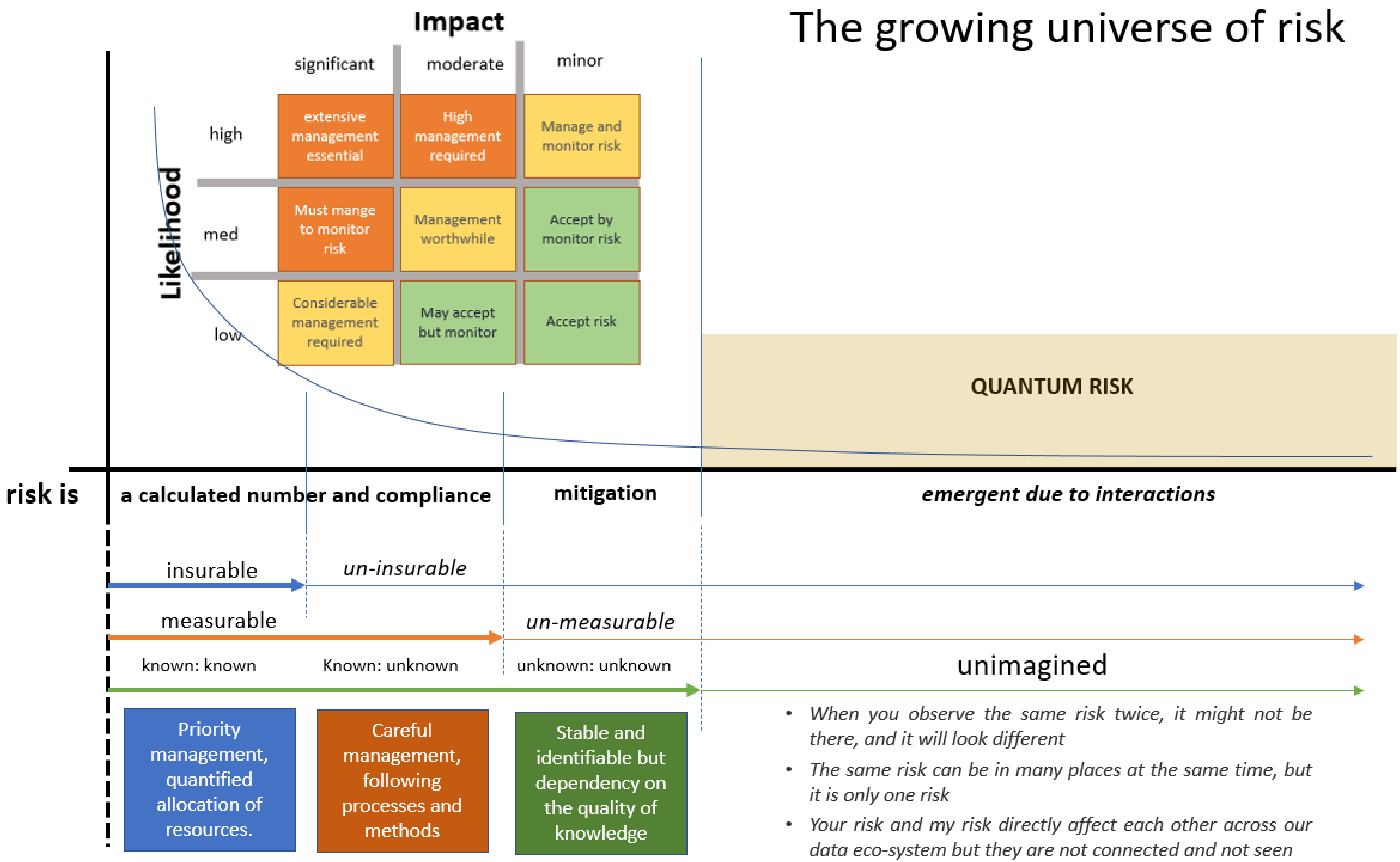
Risk Identifications - Maple Financial Case

Technology Risk Identification

- Cloud
- 5G
- AI
- Quantum
- Resulting Data Risk

Risk Identifications - Maple Financial Case



Risk Identifications - Maple Financial Case