

Online Reading: SOA Monograph A new approach for managing operational risk Sections 5-7

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Key Topics in this Lesson

What is Operational Risk?

Risk Architecture and Taxonomy

The ORM Business Problem





What is Operational Risk?

Operational Risk

“The risk of loss from an operational failure”

Unintentional
execution errors

System failures

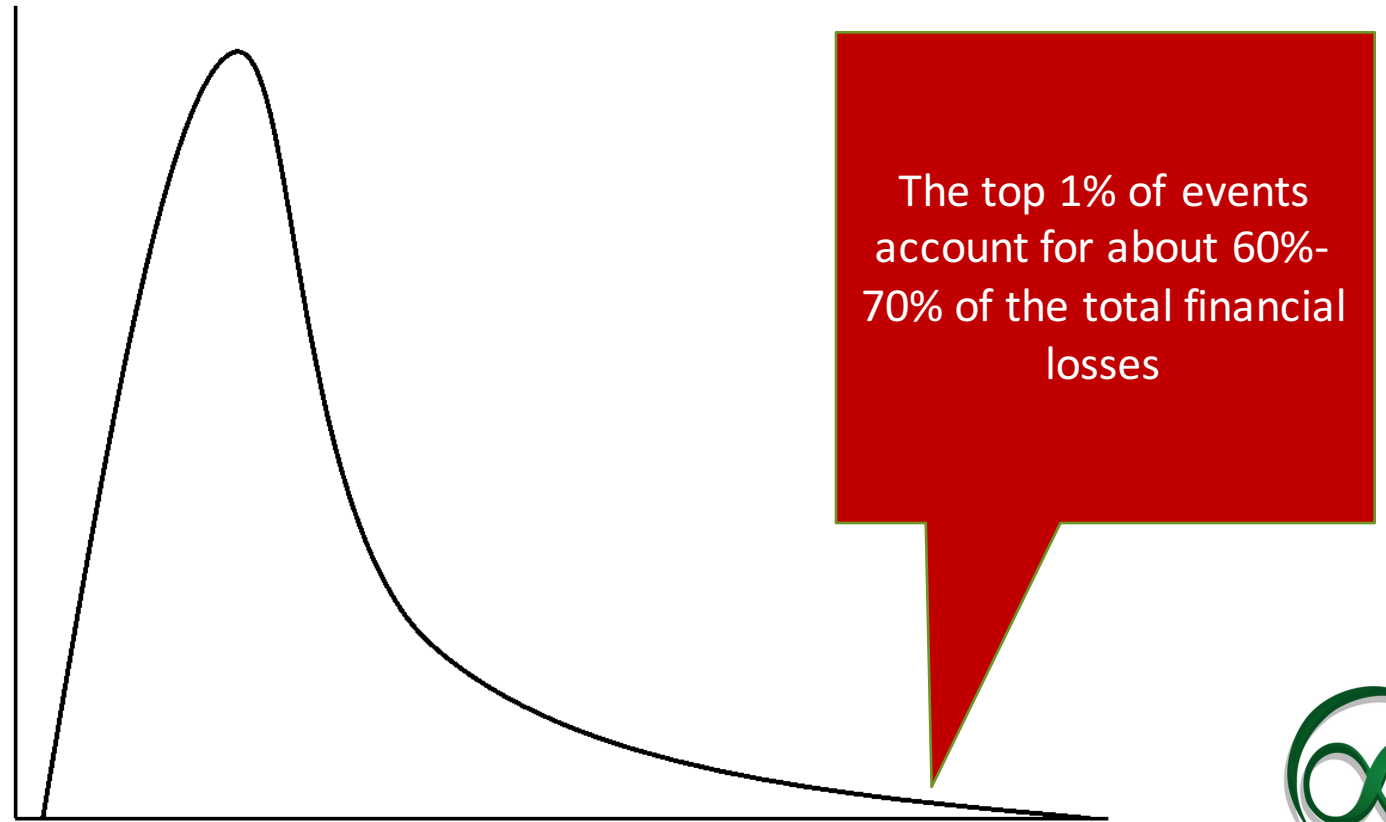
Acts of nature

Excessive risk
taking



Modern Operational Risk Management (ORM)

“The abnormal operational failures that drive operational risk”





Risk Architecture and Taxonomy

Operational Risk Architecture and Taxonomy

Taxonomy is the risk classification scheme;
very important for management purposes.

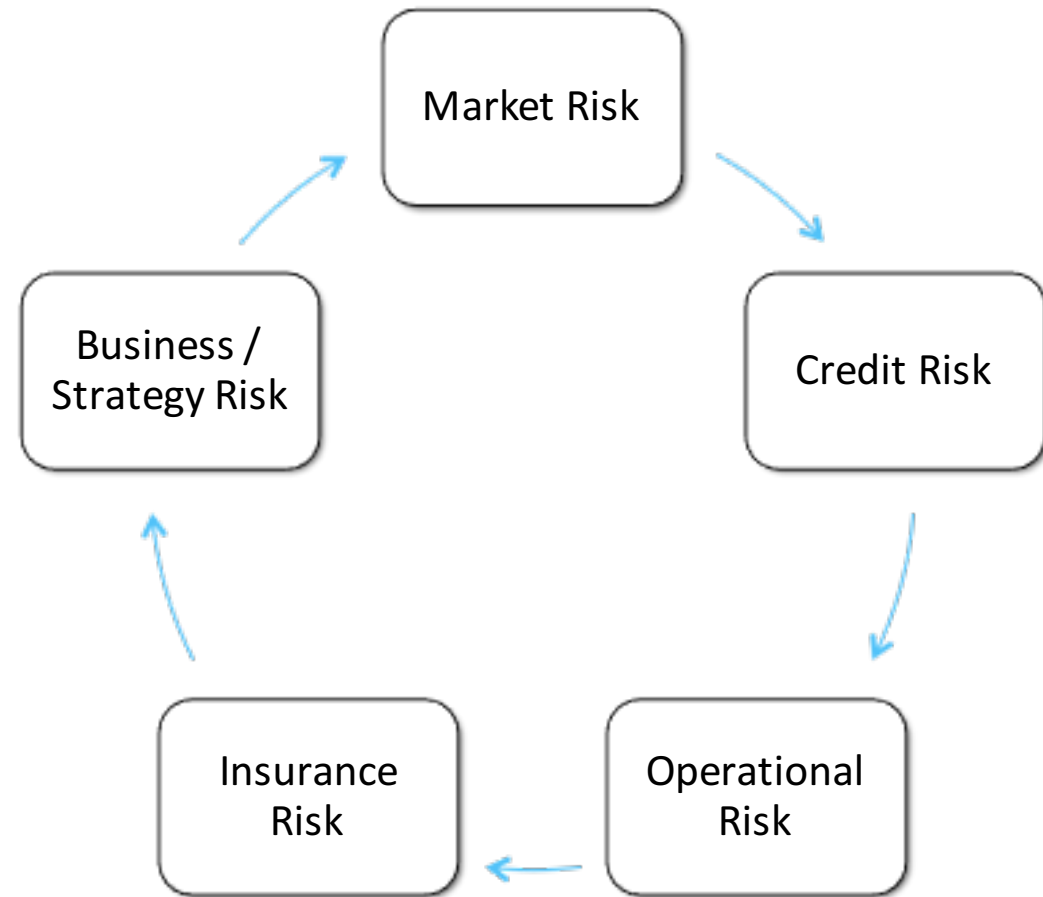
Recommendation:

Be sure a risk taxonomy is based on a comprehensive understanding of the basic elements of ERM and their relevance to the ERM/ORM business problem.

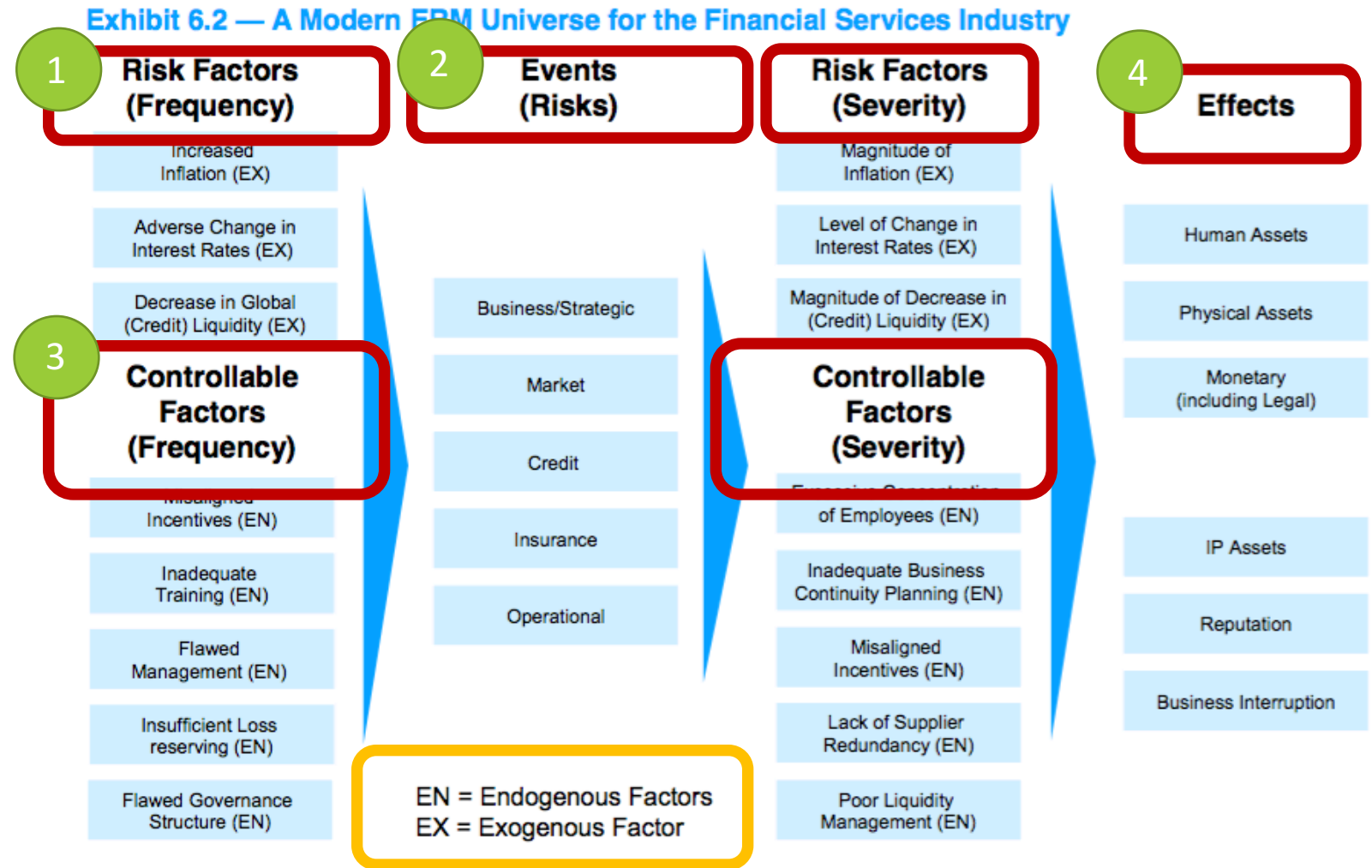


The Modern Risk Universe

The recommended top-line risks for your risk universe



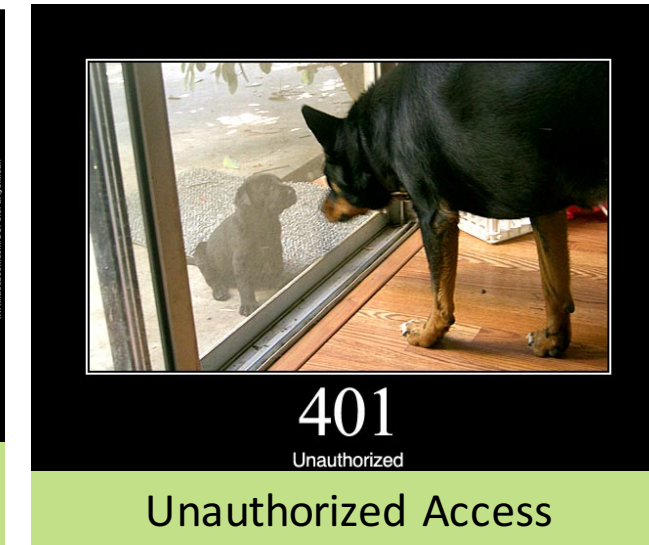
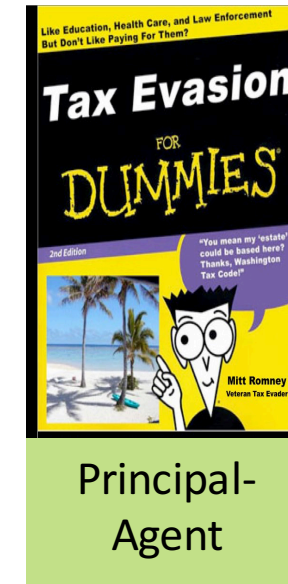
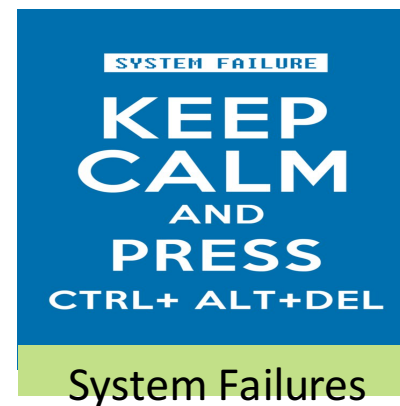
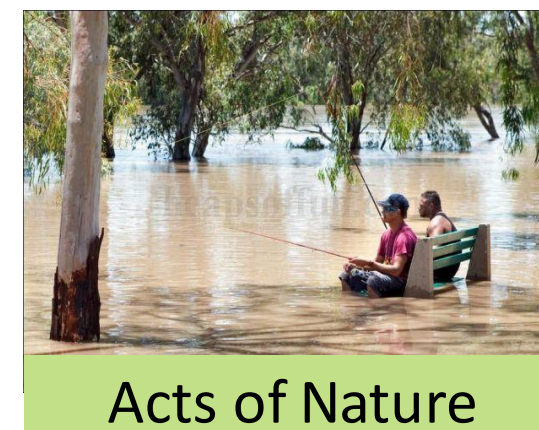
Four Dimensions of the Modern ORM Risk Universe



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The Set of Top-Level Event Risk Categories





A hand holding a black marker is writing on a white surface. The word "Problem" is written in a large, cursive font. To its left is a square checkbox. Below "Problem" is the word "Solution", also in a large, cursive font. To its left is a square checkbox with a red checkmark inside it. A black arrow points from the end of the word "Solution" towards the right.

☐ Problem
☒ Solution

The ORM Business Problem

Roles and Responsibilities of the ORM function

- ❑ Embed a risk culture
- ❑ Provide the framework, infrastructure, tools, and methodology
- ❑ Ensure transparency



Business Problem Example

Exhibit 7.2 — Strategic Risk-Control Optimization Information Summary

Level of Loss	Current	Hypothesized
99% level aggregate loss	100,000,000	25,000,000
Expected loss	<u>20,000,000</u>	<u>5,000,000</u>
Unexpected loss (99%)	80,000,000	20,000,000

Cost of system	\$5,000,000
Cost of capital	10%

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$$\begin{aligned}\Delta \text{ Cost of Risk} &= \Delta \text{ Expected Loss} + \text{Cost of Capital} \times \Delta \text{ Unexpected Loss} \\ &= (20,000,000 - 5,000,000) + 10\% \times (80,000,000 - 20,000,000) \\ &= 15,000,000 + 10\% \times 60,000,000 \\ &= 21,000,000\end{aligned}$$

\$5mm < \$21mm “Purchasing this system will optimize the risk-control environment.”



Creating the Modern ORM infrastructure



- ❑ **Explain** to key decision makers
- ❑ **Facilitate the development** of a viable risk management architecture
- ❑ Provide key decision makers with the **ability to measure** the expected loss and unexpected loss.
- ❑ **Assist** key decision makers in developing/acquiring tools and methodology to assess and monitor internal control quality on a periodic basis.



Modern ORM Templates

Exhibit 7.3 — Example of Modern ORM Risk Assessment/Measurement Template

Business Unit A	Internal Fraud	External Fraud	Employment Practices and Workplace Safety	Clients, Products and Business Practices	Damage to Physical Assets	Execution, Delivery and Process Management	Business Disruption and System Failures	Total
Unexpected Loss	36,000,000	21,000,000	45,000,000	75,000,000	24,000,000	20,000,000	18,000,000	239,000,000
Expected Loss	4,200,000	3,500,000	5,000,000	4,000,000	3,000,000	12,000,000	4,000,000	35,700,000

Exhibit 7.4 — Example of Modern ORM Control Assessment Template

Score	Control Name	Weak Attributes			Moderate Attributes			Strong Attributes		
		1	2	3	4	5	6	7	8	9
6	Segregation of Duties	■ Segregation of duties is managed by policy and procedures			■ Capabilities limited through system profiles ■ System profiles are not administered by independent team ■ Profiles reviewed annually or less			■ Capabilities limited through system profiles ■ System profiles are administered by independent team ■ Profiles reviewed semiannually		
8	Ethics Code	■ An Ethics Code does not exist or exists but has not been effectively communicated to employees			■ An Ethics Code has been established by management ■ Employees are required to read and affirmatively note their acceptance of Ethics Code			■ An Ethics Code has been established by management ■ Employees are required to read and affirmatively note their acceptance of Ethics Code ■ Anonymous Hotline has been established to report unethical behavior		
4	Employee Activity Reports	■ Some employee activity reports have been developed but are not monitored consistently			■ Some employee activity reports have been developed ■ Reports are monitored periodically by management			■ Critical employee activity reports have been developed ■ Reports are monitored by an independent team on a continuous basis ■ An escalation process exists		

Exhibit 7.5 — Example of Modern Integrated Risk and Control Assessment Template

Property/ Casualty Insurance	Internal Fraud	External Fraud	Employment Practices and Workplace Safety	Clients, Products and Business Practices	Damage to Physical Assets	Execution, Delivery and Process Management	Business Disruption and System Failures	Total
Current Risk	36,000,000	21,000,000	45,000,000	75,000,000	24,000,000	20,000,000	18,000,000	239,000,000
Change in Control Scores	50 55	65 65	70 72	53 55	55 60	70 75	64 68	59 61
Hypothesized Risk	32,000,000	21,000,000	44,000,000	72,000,000	22,000,000	19,000,000	17,000,000	227,000,000



Traditional ORM in Practices

- ❑ **Identify** your risks
- ❑ **Quantify** your risks
- ❑ **Accept** those risks within your tolerance
- ❑ **Develop** action plans



Pros: Provides structure, simple, effective for prevention at tactical level

Cons: Associated with average or expected loss, little mitigation for large losses, lack of cohesion



Conclusion

What is Operational Risk?

Risk Architecture and Taxonomy

The ORM Business Problem



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Learning Without Bounds

