

### What is ERM?

Every entity exists to provide value for its stakeholders

All entities face uncertainty

How much risk is acceptable?

How much risk does the entity accept?

Optimal balance between risk and return

# What is ERM? Classical Risk Management Avoidance Reduction Transfer Retention

Enterprise Risk Management

Decision framework

Strategic planning

Operations management

Internal controls



### The alternative?

Uninformed decisions

Inadequate use of modeling

Blind faith in models

Strategic irrelevance

Inefficient operations

Silo mentality

Surprises

Does ERM help companies make better risk management decisions?

Does ERM help companies make better business decisions?

How much better? Is the marginal value of ERM worth the marginal cost?

Relevant only if Risk Appetite is clearly stated
Risk Tolerance measures are relevant
Risk Tolerances are measurable
Relevant only if all possibilities are considered

Can we model future risk distributions?

Only if all risks are included

Insurance risk

Investment risk

Operational risk

Strategic risk

Can we model future risk distributions?

Only if all risks are accurately parameterized

Frequency & severity modeling

Complete distributions

Parameter risk

Reserve risk

Correlations / copulas

Contagion

### Governance

Board-level reporting

Independence

### Culture

Senior management support

Clear roles Incentive links

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What is ERM motivation?

Proactive

Driven by company needs & vision

Anticipate applications

Can be built on

Reactive

Only to satisfy minimum requirements

May still evolve

Kicking and screaming

### Measurement

Risk identification

Consistent view of risk across organization

Clear understanding of risk tolerance measures

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### Attitude

How valuable is ERM?

Range of appropriate tools

Quality of analysis

Timing

Communication

How much is ERM valued?

Communication

Follow-up / responsibility

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Ask questions

Make honest assumptions

Build in full distribution of possible outcomes

Take responsibility

What did we miss last time?

What could happen next time?

More often than not, the industry is aware of the potential for the next "catastrophe" but hasn't taken sufficient steps to address the risk in advance

If you're not aware and involved, you can't be improving the system It's not "somebody else's problem"

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