Who We Are

CEB is the leading member-based advisory company. By combining the best practices of thousands of member companies with our advanced research methodologies and human capital analytics, we equip senior leaders and their teams with insight and actionable solutions to transform operations.

This distinctive approach, pioneered by CEB, enables executives to harness peer perspectives and tap into breakthrough innovation without costly consulting or reinvention. The CEB member network includes more than 16,000 executives and the majority of top companies globally.

25+ Years of Experience
110+ Countries Represented
10,000+ Participating Organizations
240,000+ Business Professionals

88% of the Fortune 500
82% of the FTSE 100
56% of the Dow Jones Asian Titans 50
While global CEOs acknowledge current and future business complexity, less than half feel they are prepared to respond.

- Heightened uncertainty places a greater premium on effective risk management.

“...The solvency of sovereign states has ceased to be a foregone conclusion.”
 Mario Draghi, President European Central Bank

## HEIGHTENED IMPORTANCE OF RISK MANAGEMENT

### Organizations Are Experiencing Significant Upheaval

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Degree of Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>More Volatile, Deeper/Faster Cycles, More Risk</td>
<td>69% To a Large/Very Large Extent, 18% To Some Extent</td>
</tr>
<tr>
<td>More Uncertain, Less Predictable</td>
<td>65% To a Large/Very Large Extent, 21% To Some Extent</td>
</tr>
<tr>
<td>More Complex, Multifaceted, Interconnected</td>
<td>60% To a Large/Very Large Extent, 22% To Some Extent</td>
</tr>
<tr>
<td>Structurally Different, Sustained Change</td>
<td>53% To a Large/Very Large Extent, 21% To Some Extent</td>
</tr>
</tbody>
</table>

n = 1,541 CEOs.

### Trends in Corporate Risk

**Economic Risk**

**Macroeconomic Volatility**
- Real GDP growth in the advanced economies is expected to gradually return to 2% with continued downside risk.

**Uncertain Capital Markets**
- Sustained rise in TED spread, daily market volatility, and industry churn.

**Changed Consumer Demand**
- Continued consumer deleveraging accompanied by slow wage growth.
- Lasting changes in consumer preferences and behaviors resulting from the “Great Recession.”

**Operational/Regulatory Risk**

**Regulatory and Compliance Risk**
- Heightened regulatory enforcement environment including 124% increase in FCPA cases and 11% rise in US antitrust criminal cases in last two years.

**Increasing Physical and Data Security Risk**
- 49% of countries may experience political violence in the coming year.²
- Exponential growth in the amount, types, and uses of data creates legal and security risks (and opportunities).

**Environmental Uncertainty**
- Forecasted increase in extreme weather events.
- 61 countries are subject to potential supply chain disruptions.²

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¹ 2010 Global IBM CEO Study.
² Aon’s political risk heatmap.
A Recent Challenge from Our Members
How do I effectively measure and demonstrate the value of my ERM program?

The Root Cause

Differing stakeholder expectations of effective risk management have made performance tracking difficult and have prevented investment in ERM programs.

What’s at Stake

Lack of stakeholder investment increases the likelihood that the ERM program will be built in an ad hoc, reactive manner.

Disparate Stakeholder Expectations Make It Difficult to Demonstrate ERM Value

Common expectations from all stakeholders include:
- Documented governance structures and policies
- Rapid risk identification and mitigation
- Timely risk reporting and disclosures
- Accuracy in forecasts
- Development of desired risk culture

Rating Agencies
- Clear governance, structure, segregation of duties, and control infrastructure
- Adequate capital reserves
- Risk-adjusted compensation schemes

Governments/Regulators/Courts
- Compliance with laws and regulations
- Accurate, timely risk disclosures
- Investor confidence in markets

Institutional and Individual Investors
- High risk-adjusted returns relative to peers
- Accurate earnings forecasts
- Consistent, stable growth

Board of Directors
- Overview and understanding of material enterprise risks
- Ability to pursue corporate strategies
- Personal protection from criminal penalties

Business and Employees
- Clear business advice
- Avoidance of operational delays and costs
- Freedom of strategic action
- Efficient operating processes (speed of risk reviews, low cost of goods sold)
FINDING OUR WEAK SPOTS

Priority Score\(^1\) by Activity
*RISC ERM Survey, 2012*

<table>
<thead>
<tr>
<th>Risk Policy and Governance</th>
<th>ERM Life Cycle</th>
<th>ERM Integration into Operations and Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enterprise Risk Reporting</td>
<td>2.3</td>
<td>3.4</td>
</tr>
<tr>
<td>Improving Risk Management Policies and Practices</td>
<td>2.3</td>
<td>3.8</td>
</tr>
<tr>
<td>Development of Risk Management Policy/ Framework</td>
<td>2.4</td>
<td></td>
</tr>
<tr>
<td>Enterprise Risk Assessment</td>
<td>3.4</td>
<td></td>
</tr>
<tr>
<td>Enterprise Risk Identification</td>
<td>3.8</td>
<td></td>
</tr>
<tr>
<td>Risk Management Training</td>
<td>2.8</td>
<td>3.3</td>
</tr>
<tr>
<td>Defining Risk Appetite</td>
<td>3.3</td>
<td>3.8</td>
</tr>
<tr>
<td>Establishing Risk Tolerances and Key Performance Indicators</td>
<td>3.8</td>
<td></td>
</tr>
<tr>
<td>Fostering a Strong Risk Culture (e.g., Employees Understand and Proactively Manage Risks)</td>
<td>4.3</td>
<td></td>
</tr>
<tr>
<td>Enterprise Risk Monitoring</td>
<td>4.6</td>
<td></td>
</tr>
</tbody>
</table>

\(n = 42\).

\(^1\) Each activity was ranked by importance and current effectiveness on a 5-point scale. Priority scores are calculated from the importance and effectiveness ratings as follows: \([\text{Importance of Activity} \times (\text{Importance} - \text{Effectiveness})]\)

FINDING THE OWNER

ERM Program Activities
2012 Council Survey

- ERM is more likely to own or participate in activities with the lowest priority scores.
- ERM possesses less direct influence over the activities it considers most important for program improvement.
- To be effective, ERM must embed into business activities and foster the desired business unit risk culture.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Owns</th>
<th>Participates</th>
<th>Does Not Participate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk Policy and Governance</td>
<td>10%</td>
<td>13%</td>
<td>3%</td>
</tr>
<tr>
<td>ERM Life Cycle</td>
<td>90%</td>
<td>87%</td>
<td>58%</td>
</tr>
<tr>
<td>ERM Integration into Operations and Objectives</td>
<td>23%</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>Enterprise Risk Reporting</td>
<td>8%</td>
<td>8%</td>
<td>28%</td>
</tr>
<tr>
<td>Development of Risk Management Policy/ Framework</td>
<td>23%</td>
<td>8%</td>
<td>35%</td>
</tr>
<tr>
<td>Improving Risk Management Policies and Practices</td>
<td>18%</td>
<td>53%</td>
<td>56%</td>
</tr>
<tr>
<td>Enterprise Risk Identification</td>
<td>59%</td>
<td>40%</td>
<td>36%</td>
</tr>
<tr>
<td>Enterprise Risk Assessment</td>
<td>40%</td>
<td>36%</td>
<td>36%</td>
</tr>
<tr>
<td>Risk Management Training</td>
<td>36%</td>
<td>36%</td>
<td>25%</td>
</tr>
<tr>
<td>Enterprise Risk Monitoring</td>
<td>36%</td>
<td>34%</td>
<td>25%</td>
</tr>
<tr>
<td>Fostering a Strong Risk Culture</td>
<td>28%</td>
<td>36%</td>
<td>36%</td>
</tr>
<tr>
<td>Defining Risk Appetite</td>
<td>36%</td>
<td>36%</td>
<td>36%</td>
</tr>
<tr>
<td>Establishing Risk Tolerances and Key Performance Indicators</td>
<td>28%</td>
<td>35%</td>
<td>35%</td>
</tr>
</tbody>
</table>

n = 40.
Note: Data may not sum to 100% due to rounding.

Current ERM metrics focus on activity completion instead of results achieved.

- While activities are important, ERM should better align measurement with the risk capabilities it needs to create and the value it wants to achieve.

- Without a precise focus on value, ERM will struggle to create a meaningful program dashboard.

**AN INCOMPLETE PICTURE**

Most Commonly Tracked ERM Metrics

<table>
<thead>
<tr>
<th>Percentage of Respondents Tracking Metric</th>
<th>Activity-Based Metrics</th>
<th>Outcome-Based Metrics</th>
<th>Capabilities Metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changes in Significant Enterprise Risks</td>
<td>79%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Root Causes of Material Risk Events</td>
<td>52%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Material Operational Risk Events</td>
<td>38%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of Employees Completing Risk Management Training</td>
<td>36%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improvements in Credit Ratings and/or Insurance Costs</td>
<td>33%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Unit Risk Management Maturity (e.g., Local Ability to Manage Risks)</td>
<td>31%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Unexpected Material Risk Events</td>
<td>24%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Risks Escalated by Employees (Not in a Core Risk Management Role)</td>
<td>24%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee Feedback on Risk Training Content Quality and Relevance</td>
<td>21%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accuracy of Risk Forecasts</td>
<td>14%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

n = 42.


“We have established the foundation of our ERM program, but can’t really measure the value that we create through our efforts.”

Manager, Enterprise Risk Management Energy Company
FOCUS ON ENTERPRISE VALUE

Barriers to Measuring Program Effectiveness
Percentage of Respondents Selecting Barrier, 2012

<table>
<thead>
<tr>
<th>Barrier</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficulty Proving Risk Prevention Resulted from ERM Activities</td>
<td>32%</td>
</tr>
<tr>
<td>Difficulty Designing Meaningful Metrics</td>
<td>30%</td>
</tr>
<tr>
<td>Lack a Clear Program Mandate</td>
<td>15%</td>
</tr>
<tr>
<td>Inability to Demonstrate Money Saved (or Opportunities Gained)</td>
<td>12%</td>
</tr>
<tr>
<td>Lack Necessary Analytical Capabilities</td>
<td>10%</td>
</tr>
<tr>
<td>Lack Relevant Comparisons with Peers</td>
<td>5%</td>
</tr>
<tr>
<td>Other</td>
<td>7%</td>
</tr>
</tbody>
</table>

n = 41.

ERM’s Role in Enterprise Value

1. Value Preservation
   - Setting risk tolerances
   - Establishing enterprise risk mitigation goals
   - Aligning risk mitigation with corporate objectives
   - Calculating the value of risk prevention

2. Value Creation
   - Linking enterprise risks with shareholder value
   - Identifying opportunities to accept more risk
   - Reducing redundancy in risk management efforts

Source: Corporate Executive Board research.

Designing metrics that demonstrate meaningful value creation is a critical barrier to ERM program success.

- ERM supports enterprise value in two primary ways: value preservation and value creation.
- Program metrics should focus on these two fundamental tasks.
### MEASURING ERM EFFECTIVENESS

**Spectrum of ERM Program Metrics Tracked**

<table>
<thead>
<tr>
<th>Goal 1</th>
<th>Goal 2</th>
<th>Goal 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Establish Mature Program Infrastructure</strong></td>
<td><strong>Foster Desired Risk Culture and Improve Business Risk Capabilities</strong></td>
<td><strong>Support Enterprise Value Creation</strong></td>
</tr>
</tbody>
</table>

#### Relevant Activity-Focused Metrics
- ERM program maturity
- Feedback from business partners
- Timeliness of risk reports
- Assigned owners for significant risks

#### Relevant Capability Metrics
- Number of requests for advice
- Risk culture scores
- Speed of risk escalation
- Risk integration into business processes
- BU risk management competency

#### Relevant Outcome-Focused Metrics
- Reduction in residual risk
- Improved decision-making quality
- Accuracy of earnings forecast
- Number of unanticipated risk events

Regulators, rating agencies, and boards increasingly require a documented system of risk governance, control and management practices, and regular risk reports.

Sixty-three percent of ERM executives rank “enhancing risk culture across organization” as a top priority.

Sixty percent of ERM executives rank “aligning risk management with organization’s strategic objectives” as a top priority.
Today’s session highlights leading approaches for measuring and managing ERM effectiveness.

OVERVIEW OF PROFILED SOLUTIONS

1 Establish a Baseline Measure of ERM Maturity

- Solution 1: Independent Health
  Create Testable ERM Maturity Model

2 Measure Business Unit Risk Culture

- Solution 3: Vanguard
  Validate Business Risk Competency

3 Link ERM to Value Creation

- Solution 6: Johnson & Johnson
  Calculate Net Exposure Reduction

Solution 2: Beta Company
Capture End-User Performance Feedback

Solution 4: NAB
Develop Risk Culture Audits

Solution 5: Piedmont Natural Gas
Integrate Risk in Project Planning

Solution 7: Vanguard
Define the Root Causes of Risk Events

Solution 8: Starwood
Map Enterprise Risks to Strategic Value Drivers

Solution 9: Salerno
Define and Characterize Strategic Assumptions

1 Pseudonym.
LINKING RISK TO SHAREHOLDER VALUE

OVERVIEW

Starwood creates a framework depicting the relationship between shareholder value and its constituent drivers. They map their top enterprise risks against elements of the shareholder value map to identify how risks impact value creation. This focuses risk treatment and measurement on the most important elements of the shareholder value map.

KEY INSIGHTS

- **Focus Measurement on Shareholder Value**—Use shareholder value as the starting point and output metric for measurement of risk management effectiveness.
- **Identify Linkages between Strategic Drivers and Enterprise Risks**—Identify the processes, assets, and capabilities most affected by top enterprise risks to understand the relationship between risks and shareholder value.

COMPANY SNAPSHOT

**Starwood Hotels & Resorts Worldwide, Inc.**
- **Industry:** Hospitality
- **2011 Sales:** US$5.62 B
- **Employees:** 145,000

Starwood Hotels & Resorts Worldwide, Inc., has over 1,000 hotels in over 100 countries. Starwood hotel brands include St. Regis®, The Luxury Collection®, W®, Westin®, Le Méridien®, Sheraton®, Four Points® by Sheraton, Aloft®, and Element SM.
Starwood unpacks shareholder value into its constituent drivers, levers, and support functions.

- The value map creates a common vocabulary of risk and return.
- Each progressive level in the value map adds further granular detail to the value proposition.
ERM maps the top enterprise risks to their corresponding value drivers and targets to identify the processes, assets, and capabilities most at risk.

The shareholder value map clearly illustrates the risks with true enterprise impact, supporting improved resource allocation decisions.
FOCUSING RESPONSE ON VALUE PRESERVATION

This approach ensures that risk response techniques preserve shareholder value.

- The risk treatment plan focuses on risks with the highest concentration of impact to value drivers.
- ERM assigns clear ownership responsibilities for effective risk oversight.

"This framework helps create better alignment of strategy, process, technology, and organizational knowledge for the purpose of evaluating and intelligently managing the uncertainties faced by Starwood as it creates shareholder value."

Starwood Hotels & Resorts Worldwide, Inc.

<table>
<thead>
<tr>
<th>Intangible Asset Management Risk</th>
<th>Enterprise Risk 2</th>
<th>Enterprise Risk 3</th>
<th>Enterprise Risk 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Risk Treatment Action Plan</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Value Improvement Lever</strong></td>
<td><strong>Risk Treatment</strong></td>
<td><strong>Risk Owner</strong></td>
<td><strong>Key Risk Indicators</strong></td>
</tr>
<tr>
<td>Product and Service Innovation</td>
<td>Analyze product and service portfolio to identify innovation opportunities.</td>
<td>SLT/ Global Brands/Operations</td>
<td>Brand Loyalty, Competitor Innovations</td>
</tr>
<tr>
<td>IP Asset Management</td>
<td>Insert additional layers of security and redundancies to protect IP assets.</td>
<td>Shared Services</td>
<td>Customer Complaints, IP Leakage Monitoring</td>
</tr>
<tr>
<td>IT Management</td>
<td>Analyze potential usage of cloud services and social media platforms.</td>
<td>Information Technology</td>
<td>Customer Loyalty Trends, Sales/Ad Placement Trends</td>
</tr>
<tr>
<td>Marketing and Advertising</td>
<td>Assess your advertising portfolio to focus on high ROI strategies.</td>
<td>Revenue Management</td>
<td>Customer Retention, Cost of Advertising to Sales Volume Ratio</td>
</tr>
</tbody>
</table>

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