

# Decisions, Decisions

Businesses at Perilous Crossroads



# Actuaries

Risk is Opportunity.™

Without a set of guiding principles to deliver on the promise of enterprise risk management (ERM), businesses may find themselves at perilous crossroads in defining and managing risks.

As consultants, chief risk officers and risk managers, members of the actuarial profession are seeing a startling trend—many businesses are failing to deliver on the promise of ERM. Based on best practices from years of experience, leading actuaries, in partnership with the Society of Actuaries (SOA), urge businesses to commit to five principles to evaluate their ongoing ERM investment.

Following are examples of ERM at work. Each example addresses how actuarial expertise helps companies manage their risks and convert these risks into opportunities.

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## ABOUT ACTUARIES

Actuaries bring a complex future into focus by applying unique insight to risk and opportunity. Known for their comprehensive approach, actuaries enable smart, more confident decisions.

## ABOUT THE SOCIETY OF ACTUARIES

The Society of Actuaries (SOA) is an educational, research and professional organization dedicated to serving the public and its members. The SOA's vision is for actuaries to be recognized as the leading professionals in the modeling and management of financial risk and contingent events. The SOA's mission is to advance actuarial knowledge and to enhance the ability of actuaries to provide expert advice and relevant solutions for financial, business and societal problems involving uncertain future events. To learn more visit [www.soa.org](http://www.soa.org).

### The guiding principles include:

1 A Qualified Leader

2 Clear Communication

3 A Combination of Qualitative and Quantitative Information

4 A Broader Focus

5 An Attitude Adjustment

### Risk

A financial services company needs to know more about the impact that a customer privacy data leak could make on its enterprise.

**TRADITIONAL APPROACH:** The company develops simulated scenarios based on general assumptions and generic data on the likelihood of a data leak. This approach does not provide detailed and personalized-enough information for the company to make a strategic decision. The company decides not to change any processes and remains vulnerable to a data leak.

**ACTUARIAL APPROACH:** An actuary helps the insurance company collect data from its internal experts on data privacy and develops a consistent set of quantitative information. The information reveals two new and important results for the company. First, this risk is identified as one of the largest potential financial impacts on the company. Second, there is an opportunity to mitigate this risk to a greater degree. The exposure can be reduced by purging some of its ex-customer data. In the event of a privacy breach, this significantly reduces the cost of notification and monitoring for identity theft.

### Opportunity Seized

Based on the quantifiable information from the ERM analysis, the actuary determines the impact that this risk can have on the business. The company then launches a program to identify multiple sources of ex-customer data, secure the data and purge unnecessary ex-customer data, thus effectively mitigating the risk.

### Risk

A global technology components manufacturer believes its strategic planning process has led to over-the-top stretch goals. Management requests more information to understand the magnitude of the risk in not achieving its financial targets.

**TRADITIONAL APPROACH:** The manufacturer needs an external perspective, and it has no direct way of measuring the strategic planning in-house. Without quantifiable information to determine the level of risk exposure, the company continues its overly optimistic view and does not meet its financial targets, thus negatively impacting shareholders.

**ACTUARIAL APPROACH:** A consulting actuary develops a risk-based model that looks at multiple simultaneous risks that impact the company's value. The actuary works with management to develop risk scenarios to the strategy, such as lower market penetration and an inability to maintain its price premium in the market. The actuary then demonstrates that the company would lose 20 percent of its value if it does not achieve the strategic plan previously communicated to shareholders. This 20 percent matches how much its stock options were out-of-the-market.

### Opportunity Seized

The analysis helps the company understand the importance of managing the individual risks in relation to its overall strategy. Essentially, the actuary determined that the market is expecting the company to not to hit its strategic goals/financial targets. If the company meets or exceeds the financial targets, it might expect a 20 percent rise in its stock price.

### Risk

A major U.S. household cleaning products company wants to quantify the potential impact of each of its core risks, through a prior qualitative approach.

**TRADITIONAL APPROACH:** Without a clear understanding of the quantitative information surrounding the company's multiple risks, the company is not able to identify that a supposedly low-level risk is actually one that requires more attention. The company remains exposed to this large risk for a longer, or indefinite, time period.

**ACTUARIAL APPROACH:** The company is surprised to learn that its top risk, by far, was to lose a particular sole-source supplier. The actuary's analysis using quantitative information reveals that the loss of this supplier impacts two major product lines, in a way that would have a lasting impact due to the recovery time. This risk represents a potential loss of about 12 percent of the stock price.

### Opportunity Seized

Based on the actuary's enterprise risk analysis and development of an easy to understand metric, the company's management takes immediate action to mitigate this top risk. This is a risk easy to mitigate, almost completely, by qualifying a backup supplier.

### Risk

A large insurance company temporarily suspends further expenditures on anti-money laundering mitigation efforts, until it determines whether or not the potential impact of a money-laundering event is significant to its bottom line.

**TRADITIONAL APPROACH:** The company stalls mitigation or altogether stops use of the preventive efforts, thereby exposing the company to an ethical breach, which causes damaging effects to its reputation.

**ACTUARIAL APPROACH:** A consulting actuary determines that the worst-case scenario of a money laundering issue could lead the company to lose 50 percent of its value and significantly damage its reputation with its customers. This is based, in part, on the fact that the company has affinity relationships with its customers that involves a high level of integrity and trust. Therefore, in the event of an ethical breach which is part of the worst-case scenario, the impact on customer retention is more severe than in other companies.

### Opportunity Seized

The actuarial insight from the analysis helps the company realize that it is necessary to continue investing in the anti-money laundering mitigation, due to its disastrously large potential impact to the company. The end result is that management can validate the need for continued investment of the mitigation efforts.