JOINT RISK MANAGEMENT SECTION
Canadian Institute of Actuaries
Casualty Actuarial Society
Society of Actuaries

HOW TO REVIEW AN ORSA

Co-Sponsoring Organizations:

By Their Works ye Shall Know Them–Evaluating Risk Culture for Own Risk and Solvency Assessment

By Dave Ingram and Alice Underwood

The March 2013 edition of the NAIC Own Risk and Solvency Assessment (ORSA) Guidance Manual indicates that at least two sections of the ORSA report should address risk culture.

Section 1 (description of ERM framework) lists "risk culture and governance" as the first of the five key principles that an effective ERM framework must incorporate, and states that the report should summarize, among other things, the extent to which the company has "a risk culture that supports accountability in risk-based decision making."

- Section 3 (assessment of risk capital and prospective solvency) should "consider how the Assessment is integrated into the insurer's management and decision making culture".

But what is culture, anyway?

Edgar Shein, a prominent writer on business culture, has said:

> "Culture matters because it is a powerful, tacit, and often unconscious set of forces that determine both our individual and collective behavior, ways of perceiving, thought patterns, and values. Organizational culture in particular matters because cultural elements determine strategy, goals, and modes of operating[1]."

He goes on to say that culture has three levels: espoused values, artifacts and underlying assumptions. Espoused values are what we say about the official culture. Artifacts are the observable actions of the organization. But the underlying assumptions are ultimately the driver of culture, according to Shein.

> "The essence of culture is then the jointly learned values and beliefs that work so well that they become taken for granted and non-negotiable"[1].

Therefore, beliefs about risks form the essence of risk culture. Risks are plural here because insurers face a number of different risks and the beliefs are not necessarily going to be the same for each of those risks.

Previous work of the authors[2] has described four different and largely incompatible underlying beliefs about risk. Some new research confirms that in many insurers, the beliefs do vary from risk to risk within an insurer[3].

The fundamental belief that sits at the heart of a risk culture has to do with the intensity of a risk. How likely is it that a risk will lead to failure to accomplish the organization's fundamental goals? The intensity of any particular risk might be seen as[4]:

1. High
2. Moderate
3. Low
4. Uncertain

This belief about a risk leads directly to the choice of strategy for addressing the risk: with risk belief and risk strategy we have the "underlying assumptions" and "artifacts" described by Shein. And the combination of belief and strategy can drive the organization's ultimate degree of success or failure in the risk business. Simply put, good results require alignment of risk strategy with risk belief.

---

1 Schein, Edgar H. The Corporate Culture Survival Guide (2009)

2 Ingram, D Thompson, M & Underwood, A Rational Adaptation for ERM in a Changing Environment InsuranceERM.com http://goo.gl/RxCi78

3 Unpublished research to be presented at the ICA 2014. https://cas.confex.com/cas/ica14/webprogram/Session5862.html

4 These four beliefs are "pure" versions of the choices for belief. In many cases, the actual belief is somewhere between these extremes, e.g. "Moderately high" or "Mostly moderate but somewhat uncertain". This discussion will focus on the four "pure" beliefs only. A fuller exposition would also consider the hybrids.

© 2014 Canadian Institute of Actuaries, Casualty Actuarial Society and Society of Actuaries

In addition to "setting the tone at the top," the board can contribute to accountability in the risk culture (as expected by Section 1 of the ORSA report) by holding regular (at least annual) discussions of risk belief with management. Such discussions, enriched by the board's outside perspectives and experience, help establish accountability and could reduce the degree to which the company later finds that it held incorrect beliefs about a risk.

A correct risk belief *should* lead to a correct choice of risk strategy, but that is not guaranteed. Many insurers struggle mightily with risk strategy selection because most of the literature on ERM suggests using only a single risk strategy – one best suited to the belief that risk is moderate. This standard approach to ERM features risk appetites, risk models and risk reward optimization.

Section 3 of the ORSA report must address how the assessment of risk capital and prospective solvency is integrated into the insurer's management and decision making culture. To do this, we must understand the beliefs underpinning the risk culture, and form a judgment about whether the firm's risk strategy (and the resulting capital and solvency levels) is properly aligned with those beliefs.

One direct way to accomplish that task is to start with an examination of risk strategy. The tables below provide brief, summary descriptions of four strategies that have been observed by the authors as applied to underwriting and investment risks (the two major risks for most insurers). Examples such as these can help identify the actual risk strategy for these important risks.

Four Underwriting Risk Strategies

RISK TRADING **("Low" risk belief)**	Pricing controls with flexibility and exception process. Decentralized decision making close to the business. Limit system more guidelines than rules. Risk appetite is flexible and takes into account the potential return for the additional risk.
RISK STEERING **("Moderate" risk belief)**	Underwriting policies and procedures clearly documented. Major decisions made at corporate headquarters. Few exceptions to the rules will be allowed. Detailed limit system, tied back to clearly stated risk appetite. High degree of modeling; models consulted for most risk-related decisions. Capital allocation, possibly down to the individual risk level, is often part of this strategy.
LOSS CONTROLLING **("High" risk belief)**	Strict PML limits. Significant safety margins added to risk model outputs. No exceptions or limit breaches are allowed. Risk appetite may not be communicated for fear that it will encourage excessive risk-taking. Strong reluctance to accept new types of risk.
DIVERSIFICATION **("Uncertain" risk belief)**	This strategy uses authority limits and diversification targets. Authority limits relatively low, requiring involvement of high-level management in any large underwriting decisions. Diversification targets may be formal or informal. Lines of business and territories may be quite diverse. Quick to drop or add a new line of business or territory. Little interest in models or modeling.

© 2014 Canadian Institute of Actuaries, Casualty Actuarial Society and Society of Actuaries

Four Underwriting Risk Strategies

RISK TRADING STRATEGY (“Low” risk belief)	Market-based risk system, focused on quarterly income. Favor high-risk, high-return investments such as equities and hedge funds. Reliance on the presumption that there is little correlation between investment and underwriting risks.
RISK STEERING STRATEGY (“Moderate” risk belief)	Favor investment in indexes since it is thought to be very unlikely to find any alpha. Tend to have portfolio-based risk limits using VaR or TVaR, rather than simple asset-based risk limits. Typically incorporates a quantitative view of correlation of investment and underwriting risks based upon a detailed study, and may choose investments to complement the underwriting portfolio.
LOSS CONTROLLING (“High” risk belief)	Traditional portfolio limit and investment policy statement. Favor a very low-risk investment portfolio, frequently featuring high-quality bond investments.
DIVERSIFICATION (“Uncertain” risk belief)	Little formal strategy other than maintaining a varied portfolio with diversification targets. High degree of involvement of senior management in large investment decisions.

After identifying the risk strategy choices for the major categories of risks, it is possible to assess whether this aligns with management and board beliefs about the risk environment.

Where there is a misalignment between risk beliefs and risk strategy (and the metrics this strategy entails), assessments of required risk capital and prospective solvency are likely to be poorly integrated into the insurer’s management and decision making culture. A misaligned ERM framework can become a sort of “entertainment system”[5] that generates data and reports without affecting the operations of the company.

But once such misalignments are detected, there is opportunity for improvement. A lively discussion between the board and management may ensue, shedding light on beliefs that have gone unspoken and strategies that have become habits. Once the board and management have jointly examined current risk beliefs and risk strategies and reached a working consensus, they can form statements of espoused values[6] about risk to communicate the intended risk culture of the firm. That is the appropriate point at which to set the “tone at the top” about risk culture.

If this investigation and discussion leads the board and management to conclude that the predominant belief or strategy for an important risk must change, then they must recognize that those are fundamental elements of risk culture – and that simply stating new espoused values is not enough. To transform these fundamentals, they must undertake the slow and difficult process of organizational culture change.

5 Ingram, D A Giant Risk Management Entertainment System, Willis Wire (2013) http://blog.willis.com/2013/05/a-gigantic-risk-management-entertainment-system/

6 Shein’s third element of culture.

© 2014 Canadian Institute of Actuaries, Casualty Actuarial Society and Society of Actuaries

By Their Works Ye Shall Know Them…*By Dave Ingram and Alice Underwood*

David Ingram, CERA, FRM, PRM is a Senior Vice President at Willis Re Inc. He can be reached at *Dave.Ingram@willis.com*.

Alice Underwood, FCAS, CERA is a Executive Vice President at Willis Re Inc. She can be reached at *alice.underwood@willis.com.*

© 2014 Canadian Institute of Actuaries, Casualty Actuarial Society and Society of Actuaries