**A study of Insurer Risk Strategy**

By Alice Underwood, Chuck Thayer and Dave Ingram

Plural Rationality theory from anthropology suggests that there are four different risk attitudes that will be found driving risk related decisions. This paper will describe risk management strategies that are consistent with those risk attitudes and presents a study of the practices of 8 insurers where the approach to several of their major risks are compared to these predicted strategies. The tentative conclusion is that insurers use these four strategies and vary there use for each major category of risk and that future work may be able to show that their choice of strategy ties back to their view of each risk as predicted by the authors interpretation of the Plural Rationality theory to insurance company’s risk management.

Plural Rationality theory was first introduced by anthropologist Mary Douglas and political scientist Adam Wildavsky (1982) where they describe four distinct ways that human groups organize themselves motivated by four distinct views of risk. This theory has been developed and applied by a number of social scientists over the past 30 years. But the theory had not been applied to the activities of financial firms prior to the recent financial crisis. In 2008, Michael Thompson[[1]](#footnote-1) suggested that these ideas could be used to explain the dynamics of the credit crisis.

But what if there is more than just markets and hierarchies: more, that is, than the pendulum swinging back and forth between light-touch and heavy-handed regulation? Things then would be very different, rather in the way the payoff matrix for Pascal’s wager (about whether to believe in God’s existence) alters dramatically once we entertain the possibility of there being more than one God.  Neither Hayek nor Keynes considered that possibility (more than markets and hierarchies, that is, not more than one God) but that is what the theory of plural rationality, also called cultural theory, does. After all, why should there be just two ways of organising if, as economists and political scientists have long argued, there are four kinds of goods: private, public, common- pool and club (see Figure 1).

Briefly, markets institutionalise equality (of opportunity, that is, not outcome) and promote competition; hierarchies institutionalise inequality (eg upper echelons/lower orders, Brahmins/Dalits) and set all sorts of limits on competition. The theory of plural rationality simply completes the typology by making explicit the other two ways of organising: equality with fettered competition (which is called egalitarianism) and inequality with unfettered competition (which is called fatalism).

In 2009, Ingram presented these ideas to the ERM Symposium and subsequently collaborated with Thompson, Underwood and Bush in three papers[[2]](#footnote-2) that provide descriptions of the how the ideas of Plural Rationalities may apply to risk management in insurance and other financial firms.

But those descriptions provide one of many plausible explanations of the ups and downs of financial risk management.

This paper is the start of collecting evidence, albeit anecdotal that links these ideas to more and more of the observed management of risk in insurance and other financial services.

**Risk Strategies**

In The ERM Rainbow (Ingram, Underwood 2012), the authors briefly describe four risk management strategies: Diversification, Loss Controlling, Risk Trading and Risk Steering. The following is a more complete description of how those strategies are implemented in financial firms.

**Diversification**

Many ERM practitioners see diversification as the non-strategy strategy. Those who follow a diversification approach may appear simply to be rejecting organized ERM. But diversification is part of the risk management strategy of many perhaps most firms, and it can absolutely be applied in an enterprise-wide fashion.

When concentrations of risk are monitored and limited at an enterprise-wide level, this is Diversification-based ERM. To moderate its risk profile, the firm seeks to undertake a broad range of activities whose risks are unrelated, and to maintain a balance among these activities so that no one activity dominates. The key limit applied is a concentration limit. The best practitioners of this approach constantly monitor their risks, staying alert for any change that would markedly increase the risk of one of their ventures and thereby skew the spread of risk.

The popular investment strategy of periodic rebalancing is at its core a diversification strategy. Buying and selling the losers and gainers is intended to keep the risk of the portfolio at a predetermined balance. Different from most investment strategies, this buying and selling is done without any strong feeling about the near term prospects for better or worse performance. It presumes that keeping the right balance is more effective than attempting to predict the future returns.

Diversification is also the fundamental idea behind insurance. It is the principle that enables insurers to assume risks from many individuals, whereas those individuals cannot bear the risk alone. Following the law of large numbers, diversification is best achieved with a very large pool of independent risks of similar size and risk characteristics. When insurance companies send a fraction of their biggest risks off to a reinsurer, they are motivated by the desire to maximize the benefits of diversification.

A very few insurance firms explicitly apply diversification at the strategic level, as a major theme of their ERM process. The insurers who do focus first on diversification may set targets or ranges for the largest amount of any one category of risk as a percentage of their portfolio that they would accept. Such firms would not, for example, accept a proposal that would double their exposure to one risk unless they can grow their other risks proportionately.

Modern conglomerates, on the other hand, have elevated this approach to become their driving principle. The idea of a widely divergent group of firms within one conglomerate has gone in and out of favor over time, but a few firms persist with this strategy regardless of the choices of other large groups.

**Loss Controlling**

Loss Controlling is a fundamental risk management activity that seeks to restrict exposure to potential losses or risks. Almost all businesses do this to some degree; the internal audit function and other ways of controlling operational risks typically fit this category.

In banks and insurance companies, the major Loss Controlling activities include risk underwriting and the establishment of exposure limits. Exposure limits for nonunderwriting risks, such as interest rate and equity exposures, can be enforced by using asset-liability matching and hedging. Many life insurers apply a loss controlling strategy in their ALM and/or hedging activities which can be seen by the fact that they set very low targets for the amount of residual risk that is acceptable after these processes. ALM programs often have a dration mis-match target that is chosen to be as close to zero as is practical. Hedging programs often seek to eliminate the risk of embedded guarantees in equity linked insurance and annuity products.

In nonfinancial firms, Loss Controlling adds a physical dimension. This is addressed by safety and industrial engineering programs as well as by insuring physical property risks to set a limit on potential exposure. Supply chain and raw materials risks are managed by a variety of techniques, including but not limited to hedging. And in all types of firms, Loss Controlling strategies help to manage foreign exchange and liquidity risks.

Traditionally, each of these risks was managed in isolation. But Loss Controlling becomes an enterprise-wide approach when all the firm’s risks are measured on some comparable basis. Then management can decide whether to retain or reduce exposure to certain risks based on a view of the firm as a whole.

The development, maintenance and interpretation of comprehensive risk models that can be used to evaluate all risks on the same basis are relatively new phenomena. Often, when such a model is first deployed, and management sees the company’s actual risk profile, they sometimes realize that some risks are managed very tightly while others are essentially ignored. In the context of a Loss Controlling approach to ERM, risk models are most often used to conduct stress tests that help prepare the firm for the worst-case situation.

Some banks have targeted very low risk retention, seeking to act primarily as an intermediary and retain very little risk. This would qualify as a loss controlling strategy, except for the fact that they usually end up retaining sizable risks due to timing of actions to transfer out some risks. This means that in the end, the banks using this approach are instead of operating risk-free as they claim, they are operating at a very high leverage, with minimal capital to support their risks.

Insurers rarely act as pure intermediaries. Usually insurers act instead as aggregators of risk. An insurer that follows a Loss Controlling strategy will usually restrict their activities to a very short list of insurance and investment risks where they have very high degree of experience. Because of that experience, the management of the insurer often feel that they are able to control the losses from those activities to within a fairly narrow range. It is also common to find that insurers who follow this strategy hold a much higher level of capital relative to their risks than is common in the insurance industry. A stated goal of those insurers may be that they would expect to be able to continue business as usual even after a large unexpected catastrophe in one of their primary exposures. These insurers do not actually minimize their exposure to their chosen primary insurance risk.

Decisions about whether to undertake additional risk mitigation activities are usually made based primarily upon the degree to which they can reduce their worst case losses. They may decide perform mitigations that cost more than the expected or average reduction in losses if there is a good chance they those activities will significantly reduce the chance of a very large loss.

**Risk Trading**

Modern ERM can be traced to the derivatives trading businesses of banks. Hard lessons from uncontrolled trading and large losses led to the development of improved management processes and standards. A major element in these systems is the valuation of their positions, in other words, pricing of risks. Management of risk through Risk Trading strategy is usually applied on a transaction-by-transaction basis. But applying a consistent view of risk pricing across all risks leads to a Risk Trading form of ERM.

Many property and casualty insurance and reinsurance companies are pure Risk Trading firms. They focus on their combined ratio (the ratio of claims plus expenses to premiums). Health insurers often have the same Risk Trading focus. They consider premium inadequacy their main risk and, in fact, many firms in these sectors have failed to maintain adequate premium levels over a period of years. These firms are also less likely to want to restrict the amount of properly priced risks that they will accept. Their risk appetite will often be tightly tied to regulatory requirements but may also include an automatic adjustment to their risk appetite based upon the expected return of the opportunities that might otherwise be restricted by their stated risk appetite.

When these firms shift to an enterprise focus for their risk management programs, they start to think about using economic capital and a cost-of-capital approach to standardize their pricing risk margins. These firms may also establish risk limits that relate to the amount prices may deviate from the “standard” by-the-book rates.

Life insurers often use a Risk Trading ERM strategy if universal life or deferred fixed annuity products comprise a significant portion of their portfolio. For such products, there is a target interest rate margin and a regular discretionary process for setting the interest rates that are credited to their customers. These firms sought a comprehensive approach for managing interest rate risk when they began to vary the required margin between investments and liabilities based on the credit quality of the investments.

Decisions about whether to undertake additional risk mitigation activities are usually made based upon a cost benefit analysis that compares the cost of the mitigation to the expected (average) reduction in losses resulting from the mitigation.

**Risk Steering**

The activities most commonly described as ERM today are those that incorporate risk considerations into a comprehensive process for firm-wide risk capital budgeting and strategic resource allocation, with an eye to enhancing firm value. We call this the Risk Steering strategy. The focus under this strategy is at a macro level. Information obtained from ERM systems can be used to optimize the company’s risk portfolio. Proposals to grow or shrink parts of the business, and opportunities to offset or transfer different portions of the total risk position, can be viewed in terms of risk-adjusted return. Some firms employ this approach only for major ad hoc decisions on acquisitions or divestitures; others use it all of the time.

This top-down risk management process typically uses an economic capital model as its key reference point for risk, and the key limit applied is the amount of economic capital any one activity is allowed to consume. The planning cycle then will include a capital budgeting process that incorporates the capital requirements and expected return on capital associated with planned future business. Consideration of a business plan is evaluated as a potential allocation of capital to support that business activity, and financial results are measured on a risk-adjusted basis. This includes recognition of the economic capital necessary to support business risks as well as the risk premium, loss reserves, and duration issues for multi-period risks such as credit risk or casualty insurance. A few firms that are using a Risk Steering ERM process have also created an incentive system tied to the risk-adjusted financial results.

Taken together, these activities can be seen as broadly similar to strategic asset allocation processes that allocate investments among classes to achieve the optimal return for choices along the efficient frontier. In fact, some insurers that use Risk Steering do employ the efficient frontier concept and plot their businesses on a risk versus reward graph using economic capital instead of standard deviation as the risk axis.

**Hybrid Approaches**

Firms that try to follow only one of these approaches to risk management will find their system lacking at one time or another. Banks found that their risk trading systems failed to prepare them for adverse situations that occurred much more frequently than their models had suggested, so they began to augment with some stress tests out of the loss controlling strategy. But without an understanding of the differences in perspective underlying these divergent risk management systems, many managers felt as though they had been asked to put socks on a fish.

Gaining an understanding of each of these risk management systems and recognizing that each can be applied on an enterprise-wide level offers practitioners better perspective on how the different strands can be woven together.

**Using ALL Four Systems**

The strongest ERM systems leverage the capabilities of all four approaches. Each strategy may come to the fore for a particular type of risk or a particular market environment.

For example, until someone develops a market for operational risks, those risks will be best managed using a loss controlling approach, leaving the price-focused trading approach to risks that are actually traded, and applying model-centric steering to risks that the firm can actually choose not to take.

At the strategic decision-making level, a view of the current risk environment may influence which of the four approaches takes center stage. This four-fold approach can be thought of in terms of a four-page risk dashboard, with one page for each of the four approaches to ERM. In this context, a major responsibility of the chief risk officer is to select the best order for these four pages at any point in time, based on the current and most likely emerging environment. (This is the process called Rational Adaptability in Ingram, Underwood (2012).)

The ERM approach that is expected by regulators and rating agencies is a mixture of the loss-controlling and risk-steering approaches. A top-down attention to macro firm risk as determined via an economic capital model and a "use test" are fairly pure statements of risk steering. This work is then expected to feed a limit system that operates on day-to-day decision making in a loss-controlling approach to micro risk taking.

To achieve compliance with these expectations, major changes will be needed by insurers, given the diversity of risk management approaches that we have observed in practice.

However, plural rationality theory that underlies this discussion suggest that enforced conformity to one particular blend of risk management approaches is not going to produce the desired result and, in fact, may well seriously weaken the resilience of the insurance sector.

**Company Risk Approach – 8 Case Studies**

In early 2011, senior officials at 8 insurers volunteered to identify from a long list of statements about their ERM processes for a standard set of “Key Risks” which were more or less representative of the thinking in their firm. The firms were also interviewed by one of the authors. The interview concentrated upon the statements that the insurer had indicated that they strongly agreed with. These firms were from the US, Canada, Australia, Peru, Korea, UK, Germany and Bermuda. The only selection criterion for these firms was their geographic spread. The firms included Life, Non-Life and Combined insurers. The Key Risks were Insurance, Reserves, Investments, Operations. In addition, there were statements about the way that the firm approached enterprise level coordination of their risk management.

The statements were written based upon the ideas of the four ERM strategies put forward in section 2. The objective was to find out the degree to which the different firms would say that they agreed with the same ERM strategy for each of the Key Risks or if they had different strategies for different risks. The interview was performed primarily to verify whether the person providing the responses understood the questions and to find out the degree to which the statement was fully representative of the firm’s risk strategy. The interviews were all with the highest ranking officer in the firm with primary responsibility for risk management. In most cases that person’s title was Chief Risk Officer. In one firm, the person was also the Chief Financial Officer, in another that person was also the Chief Actuary.

The conclusion of this study is that these 8 insurance firms were found to almost all use a variety of the strategies. There was no one pattern of strategies by risk. The theory of Plural Rationalities suggests that people will have different risk attitudes in different life roles. This small study suggests that in the insurance industry, each major risk category can be seen to be a different situation for the insurer. This study did not probe into the firm’s attitudes towards each of the risks, so we did not confirm the connection between risk attitude and risk strategy. But the implied risk attitudes make perfect sense in the context of the company strategy.

The Instrument

The instrument consisted of 43 statements about the four Key Risks and Enterprise Risk. For each statement the respondent was asked to indicate Strongly Agree, Agree, Neutral, Disagree, or Strongly Disagree. The following are samples of the Insurance Risk Statements. There were different numbers of statements for different risks and different strategies. Over half of the statements were related to Insurance Risk. That was thought to be appropriate because the subjects were Insurance companies and it was thought to be very important to get the correct perspective on this primary risk.

Sample Insurance Risk Statements

1. Diversification targets are an important part of risk management. But may not be specific. (Diversification)
2. Will rarely find a new risk type that they do not think is too risky or uncertain for them to write. (Loss Controlling)
3. Allocate Capital, budget capital usage and measure ROE based upon Risk Capital (Risk Steering)
4. Pricing controls are flexible and frequent exceptions are granted (Risk Trading)
5. Authority limits are low, expect a high degree of involvement of top management in large underwriting decisions. (Diversification)
6. High degree of modeling. Risk Models are important. (Risk Steering)
7. Likely to expand Risk Appetite if there is good return for the additional risks that exceeds appetite. (Risk Trading)
8. Risk models tend to understate risk, so therefore add a significant margin to model outputs before using. (Loss Controlling)
9. Often will not have a stated risk appetite, fearing that it will encourage taking more risk. (Loss Controlling)
10. Have Strict limits for maximum loss exposure. (Loss Controlling)
11. Underwriting policies and procedures are very clearly documented. (Risk Steering)
12. Will be quick to decide to drop or add a new line of business or territory. (Diversification)
13. Few exceptions to the ERM Policies, Procedures and Limits will be allowed. (Risk Steering)
14. Limits are more guidelines than rules. (Diversification)

**Insurance Risk Findings**

Insurance risk is the potential that the claims that they will pay will exceed the amount left over from the premiums collected after paying their expenses. In Christchurch, New Zealand that was devastated by an earthquake in 2010, it has been suggested that the damage claims that will be ultimately be paid by insurers to rebuild the city will exceed all of the premiums ever collected from that place over its entire history. In the interviews, four of the firms said that their risk management goal was to assist in achieving a better return for risk for Insurance Risk, a Risk Steering goal. One firm said that their goal was to limit losses from insurance risk a Loss Controlling goal. Two had dual goals. One targeted both Risk Steering and Loss Controlling and the other targeted both Risk Steering and Risk Trading.

Looking at one firm’s response in detail, we find that they agreed and disagreed evenly with the Loss Controlling oriented statements, they disagreed or were neutral with all of the Risk Trading and Diversification oriented statements and agreed or were neutral to all of the Risk Steering oriented statements. This firm was judged to be one of the four firms to follow a Risk Steering strategy for Insurance Risk.

In the interviews, Insurers who favored risk steering for their insurance risk said:

* Set boundaries within our risk appetite as well as zero tolerance qualitative risks - where we will not go.
* If warranted, the risk appetite could be revised, would require exec and board approval first
* We consult models for all risk related decisions, but no longer rely solely on models
* Aspire to calculate and allocate capital by line of business for risk reward decision making

Insurers with a Loss Controlling approach to insurance risk said:

* Written in risk appetite that we will not accept any risk that is not understood at senior exec level (regardless of potential return)

**Investment Risk Findings**

Investment risk is the risk that their investments will seriously underperform the insurers objectives. This risk may manifest itself in major market crashes as were experienced globally in 2008 or they can be the result of long periods of underperformance such as what firms who were counting on interest earnings are now experiencing from the historically low interest levels that are prevalent in most parts of the globe. For Investment Risk, three firms had a single goal, one each for diversification, loss controlling and risk reward steering. The other five firms all had two or three goals. Two firms targeted diversification, loss controlling and risk reward steering all at the same time. For the other two firms, one favored diversification and loss controlling and the other risk reward steering and loss controlling.

Specifically, in the interviews, the insurers with the risk trading approach said things like:

* Large Investment team.
* Active management and trading.
* Exploit opportunities in the market.
* Work within risk tolerance framework.

Insurers with the risk steering approach said:

* Need assets to back liability risks
* low risk investment portfolio could actually increase total risk
* Very important to match liabilities

Comments from the insurers who favored loss controlling:

* Favor Indexing.
* Do not believe that there is any additional reward to be had without additional risk.
* We want a low risk investment portfolio.
* We do not want to lose any money from taking investment risk.

While Insurers who favored a diversification approach said:

* High scrutiny of largest exposures.
* Make sure that we hit diversification targets ( but this is a secondary goal)

The conversations following the survey went easy for these two risks. Insurers are quite comfortable talking about these risks and see themselves as having made conscious choices to exploit some risks and to manage others and avoid a third group. They definitely have a language for discussing these risk and reward choices. Insurers make their money on their risk management of these two categories of risk. It would have been highly unusual if they could not have that conversation.

What was also very clear was that most of the firms did not have a consistent risk taking approach for these two risks. Five of the eight firms had a mixed strategy. Cultural Theory literature [NEED REFERENCE] suggests that people may belong to different groups that in different contexts will have different risk preferences. This study shows that insurance firms that are faced with very different risk choices have different risk preferences. When we include the additional risk categories, we will see that only one of the eight firms held a consistent approach across all risks.

**Reserves and Operational Risks Findings**

Insurers also have two major classes of risks that are not directly associated with revenues. The first is the risk that the funds held aside for future claims payments will be insufficient. In many insurance products, payments are made far in advance of the uncertain timing of claims. Insurers employ actuaries to perform careful statistical analyses that form the basis for the amount of funds held, but once or twice per decade many firms find themselves seriously short. Operational risks are the catch all category that includes many of the other major risks that plague any business, such as risk of lawsuits, of compliance failures, of computer problems, of human resources and mistakes and fraud or theft. There is no significant upside to either of these classes of risks. None of the eight firms studied followed a risk trading strategy for either category. However, we found that all of the other three strategies were all in use. For the Loss controlling strategy, insurers did the expected and sought to avoid losses. Risk steering was accomplished by balancing costs vs. risks, often using high tech modeling platforms. Pragmatists were of course using both of those approaches applying the risk strategy differentiation at a finer level of risks.

For Reserve risk, three of the firms indicated a preference for loss controlling strategy. They intend to set their reserves high that it is highly unlikely that those reserves will ever be inadequate to pay claims. Another three firms suggested that they relied on their models to carefully predict reserves that included a prudent, but not excessive margin for a Risk Steering strategy. They were playing off the cost of setting up excessive reserves against the risk of being inadequate and seeking to find the optimal balance. The other two firms agreed and disagreed with equal numbers of statements that put the other six firms firmly into one of the two categories. So their answers and further discussion during the interview indicated that they used models but did not rely upon them too much and they sought to have very few reserve insufficiencies but tried not to go too far with that either.

Operational risk is a catch-all category and only a few of the firms had developed an overall Operational Risk approach. This study did not seek to question all of the subcategories within Operational Risk. That may have revealed as much diversity of risk strategy as was found with the six headline categories actually studied. The two firms who had developed an overall approach were all using a risk steering approach and were at various stages of building risk measurement systems. (Interestingly, the banking regulator’s approach to Operational Risk is to use the risk measurement systems as if Operational Risk were a traded risk and place it into the Risk Trading paradigm that is of course fundamental to the trading desks of banks.) Three insurers answers to the questionnaire indicated that they leaned heavily towards Loss Controlling. In their interview one used the common phrase that they had “zero tolerance” for losses from operations. The other three firms did not answer the questions about Operational Risk and were not willing to discuss during the interview. That may have been because the respondents were not involved in Operational Risk management.

In the interviews, insurers with a loss controlling approach said:Reserve Risk Approaches

* We are very proud of track record of few or no reserve strengthenings needed.
* We have zero tolerance for operational losses.
* Take extra care to avoid losses form operational risks even if it costs more and slows things down.

Insurers with a risk steering approach said:

* Our reserve process is highly technical
* Operational risk management is based upon limits and a control cycle
* We have formal methodology to deal with Reputation Risk and a crisis management committee. We also do periodic polling of the public and are proactive about negative press.

Those with a risk trading approach said:

* We tend to set initial reserves close to our pricing assumptions, presuming that they got it right.

And insurers with a diversification strategy said:

* We set reserves conservatively for the natural catastrophe prone book, but with only a small margin for short tailed non-cat book

**Enterprise Level Risk Findings**

Finally, in the survey and in the interview, we looked at the strategy that the firms employed for their Enterprise Level risk management. This question actually comes mainly from the Risk Steering strategy. Within the Risk Steering strategy, a top down approach starts with the setting of a risk appetite and then seeks to take a risk portfolio approach to choosing how much of each major risk category to accept in each planning period. All eight were able to readily respond to questions about their Enterprise Level risk strategy. Three favored Risk Steering, two favored risk steering along with loss controlling and another one solely loss controlling. One had three goals for their ERM function, a combination of diversification, loss controlling and risk steering.

However, as the interview progressed, it became evident that the Risk Steering strategy was aspirational for four of the six firms that indicated using that strategy. In these cases, the firm did not yet have an economic capital model fully developed. An Economic Capital model is usually the primary tool for measuring risk in a Risk Steering strategy for insurers. Its primary functionality is to create a consistent measure of risk that is applied to all of the insurer’s risks, thereby allowing an apples-to-apples risk reward optimization that is the core activity of Risk Steering.

Insurers with a risk steering approach to their enterprise level risks said

* We have (or will soon have) a formal Economic Capital Model and Capital Budgeting process.
* We use Regulatory risk factor formula to estimate aggregate risk and allocate capital
* Collaborating across risk silos to proactively mitigate effects of combinations of risk and interactions of risks is important.

While insurers with a loss controlling approach at the enterprise level said:

* Our current focus is on Maximum Loss and keeping a wide margin above that level

And insurers with a diversification approach said:

* ERM is not exclusively about Economic Capital
* We do not have a strong belief in the accuracy of their correlation assumptions

**Single Insurer’s Self Assessment**

One insurer provided their own explanation of their risk strategies. The senior risk officer had participated in a workshop addressing Plural Rationalities and Enterprise Risk Management that was delivered by one of the authors. He divided up the firm’s risks according to the variations in risk strategy:

Natural Catastrophe Risk was managed primarily through diversification of exposures by type of natural catastrophe (earthquake, hurricanes and other high wind events and floods) and by diversification of locations of exposures.

Other Insurance Risks followed a risk trading strategy. They worked hard to make sure that they sold the insurance at the right price and risk is low concern.

Operational Risk was managed with a purely loss controlling strategy. The company was not paid for taking these risks so they did not want there to be any more risk of loss than absolutely necessary. They choose operational risk controls based upon cost benefit.

Credit & Investment Risk strategy and long term asset allocation goals were set with a risk steering approach using efficient frontier approach. (The efficient frontier approach is a plot of risk vs. reward for various investment choices. The “frontier” is option with the highest return for any given level of risk.)

Credit & Investment Risk tactical variations on their strategic asset allocation goals are based upon short-term view of markets in a risk trading approach.

**Combinations of Strategies**

Two of the eight insurers favored the same strategy for all four risk types and for enterprise level risks. One had a loss controlling strategy for all. The other had a diversification strategy for all. (The diversification strategy often includes a variety of strategies for managing risks.)

Of the other six insurers, two used two different risk management strategies and four used three strategies. Both of the two strategy firms used a risk steering approach for some risks and a diversification approach for others. Two of the other four firms used risk steering, loss controlling and diversification. The other two used risk trading and risk steering, one with diversification and the other with loss controlling.

**Conclusion**

This study suggests that insurers, firms whose primary business is risk, use the four risk strategies. The study did not try to determine whether they had risk attitudes that lined up as expected with the strategies. But very clearly the study showed that insurers generally do not adopt a single strategy towards all of their risk. Only one of the eight insurers had a consistent risk management strategy for all of five these risk categories.

This is a very small study. But it certainly supports the possibility of a conclusion that these firms in the risk business consciously choose which risk strategy that they prefer for each major risk and they vary that strategy risk by risk.

**References**

D. Ingram, Tayler, P. and Thompson, M. (2012) “Surprise, Surprise”. ASTIN Bulletin 42-2

D. Ingram, Underwood, A. (2010) The Human Dynamics of the Insurance Cycle and Implications for Insurers: An Introduction to the Theory of Plural Rationalities. Society of Actuaries

D. Ingram, D. Underwood, A. The ERM Rainbow, BULLETIN FRANÇAIS D’ACTUARIAT, Vol. 12, n° 24, juin – décembre 2012

M. Thompson (2008). Beyond boom and bust. RSA Journal. http://www.thersa.org/fellowship/journal/archive/winter- 2008/features/beyond-boom-and-bust.

M. Thompson, Ellis, R.E. And Wildavsky, A. (1990) Cultural Theory. Boulder, CO: West View Press

M. Thompson (2008). Organising and Disorganising. Axminster, U.K.: Triarchy Press.

1. Thompson (2008) [↑](#footnote-ref-1)
2. Ingram, Tayler, Thompson (2012), Ingram, Underwood (2010, 2012) and Bush, Ingram (2013) [↑](#footnote-ref-2)