



EFFICIENT FRONTIER



Exploring the captive's journey to operational efficiency

Companies extensively using captives are beginning to overlay investment language onto their insurance operations. In its purest form, captive insurance is access to contingent capital. This access carries an economic value, and companies are looking to minimise this cost and assure its viability through a number of strategies.

Companies seeking to analyse the total cost of risk associated with various risk financing structures often map internal risk financing against myriad structures that blend risk retention and risk transfer. An analysis of the residual uncertainty associated with a given risk transfer strategy allows a company to understand the value-at-risk for its corporate portfolio holistically, rather than as a summation of individual risks. Getting close to the efficient frontier at the desired risk tolerance level is key.

Self-financing a portion of risk through a captive may place an entity close to the efficient frontier. By completing an aggregate loss analysis, companies find that the volatility in losses, aggregated for multiple risks over multiple years, is lower than the sum of the volatilities for the mono-line insurance coverages across the individual years.

When combining multiple risks with low correlation into a programme, the impact

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of an adverse event for one risk may be absorbed by other risks with favourable results. Taking this into consideration, companies may find that they can reasonably fund a portion of their losses at a lower cost through their captive and transfer shock losses above a corporate retention that aligns with their overall risk appetite.

During this portfolio optimisation process, companies should first look at the lines of business that have credible data or material risk that could be coupled with other risks. The combined risk financing may be insured by the market at a minimum rate online or minimum premium, but the broader retention strategy should

reduce the overall cost of risk. Data credibility is key in this analysis and it is the access to broader and more manageable data that has improved the discussion around the insurance efficient frontier.

For example, a company may find that adding a crime policy to an existing workers compensation captive programme and purchasing an aggregated loss structure above those coverages is unlikely to change the price substantially from an excess position. They may find that writing policies for multiple risks, such as business interruption due to loss of key employee, loss of key customer, commodity price change or a severe weather event, creates an avenue for long-term funding of an unlikely but potentially costly event which may not be covered under their primary policy.

As integrated risk transfer markets have developed, questions have been asked about whether a company should aggregate all risks within that structure (the 'basket'), or whether a lighter and more compact integrated programme coupled with mono-line coverage for certain key risks will be cost-minimising. While the answer will vary from company to company, many are looking to start smaller, assuming less-correlated and more predictable risks on an aggregated basis.



Captives in their infancy may see portfolio theory as something that, albeit financially rewarding, takes time and start-up capital. Initial capital and premium requirements, including regulatory minimum capital contributions and premiums adequate to support adverse losses, may be in excess of the annual market premiums. On the other hand, mature captives with accumulated surplus may be able to accommodate an expanding portfolio of risks more easily.

Mature captives may also benefit from the availability of historical loss and exposure data and an established process for modelling losses, due in part to the regulatory requirements for reporting actuarial reserves. However, for risks not historically insured, data collection may be challenging.

Companies evaluating these risks should access as many reliable data sets as possible to come to a blended estimate of the value-at-risk. Steps involved in doing so may include a review of market losses and premiums, industry benchmarks, and past events which would produce a claim under the current structure. For risks where data sets are not credible, companies may choose to purchase insurance on a mono-line basis or retain a reasonable portion of the risk until data becomes available.

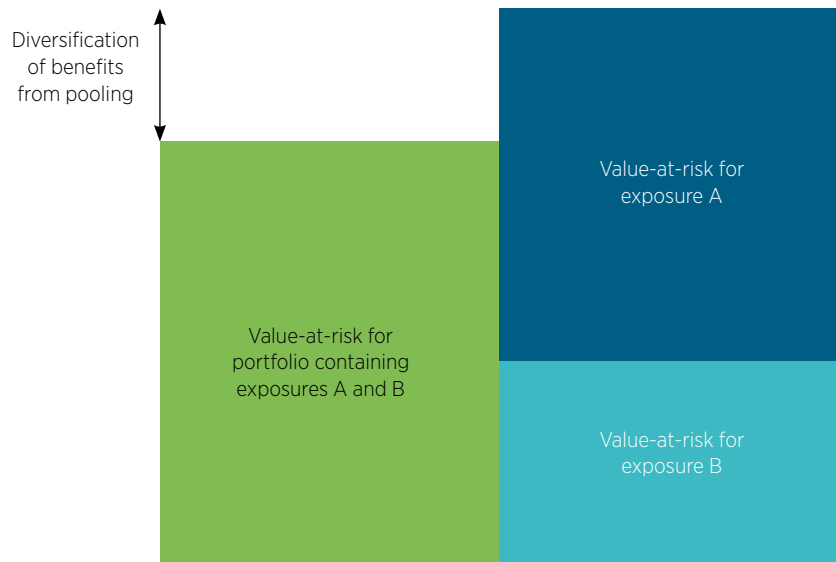
Despite the inexactitude in the approach to quantifying hazards lacking credible historical data, companies may look to create deterministic models which offer the best approach available to understanding risk financing structure implications at a given point in time. These models may prove to be truly reliable over time, as the volume of historical data for each risk and the number of risks included in the portfolio grows.

Despite any data challenges, it is clear that, in a hardening market, CFOs and treasurers want options to reduce what they see as a controllable expense. Risk managers should take this opportunity to run loss models, compare the results with their corporate risk appetite level, and develop a long-term strategy to use their captive to effectively manage their total cost of risk.

A growing number of companies are taking a more modern view on insuring risk. They are doing so because traditional insurance is purchased annually in potentially inefficient tranches, where the groupings of exposures covered under each contract are defined by the eccentricities of the historical path upon which the insurance industry evolved. Companies exist beyond annual



SUM OF LOSSES FOR INDIVIDUAL RISKS TO THE PORTFOLIO



cycles and should not see long-term access to contingent capital as an annual expense.

Many finance professionals within corporates, including risk managers, need no longer see winning (i.e. market losses > risk transfer premium) and losing (i.e. market losses < risk transfer premium) from the annual mono-line insurance transaction as a productive way in which to track progress or keep score.

Companies realise that overuse of insurance company capital, with its built-in administrative expense loads and profit requirements, may be a losing proposition. Long-term success involves the use of funds within projects that develop corporate return rather than being unnecessarily diverted to risk transfer costs. Additionally, companies seek structures which create some form of insulation from the hardening and softening market. Taken to an extreme, success may then be seen as cutting the cord with the insurance market entirely, but that may also prove to be an inefficient strategy for firm value creation.

Almost inevitably, there will be some coverages, or extreme scenarios within coverages, that will fall outside of even the most robust risk retention strategies. These will include hazards that offer so much risk that they need financing, mitigation and review. Insurance market relationships, long term, will remain important in helping to ensure that expected cost minimisation is performed within the constraints of corporate risk appetite.

Most importantly, companies at all points in the insurance value chain are turning to data-driven decision-making. Brokers are becoming consultants. Actuaries now rely on both emerging risk analysis and/or emerging analytics. Risk managers are becoming captive experts.

To develop a robust risk finance decision support framework, the first step is an analytical review of loss volatility and the aggregated loss curve (distribution) for various programme structures. This helps identify areas where losses may be retained, and areas where insurance will be most effective. After this, a full review of financing strategies involving captives, reinsurance, and regulatory compliance needs can take place. This process requires a material time investment, but one worth making.

With a set corporate strategy in place, a company's treasury department can take a hold of the financial management of hazard risk. What gets measured gets done. A company retaining risk methodically and in a holistic fashion manages that risk in a way that brings optimised expected returns while simultaneously keeping retained loss volatility within acceptable boundaries. Insurance isn't a static expense item, it is a dynamic financial hedging instrument that should be viewed as part of a long-term financial risk management strategy.

A carefully selected movement along the insurance efficient frontier can be an investment in a more prosperous corporate future. ☺