

BRIEFING SHEET

WILLIS ENTERPRISE & RISK FINANCE

COMPREHENSIVE COST OF RISK (CCoRSM)

This *BriefingSheet* describes a Willis risk analysis process called Comprehensive Cost of Risk (CCoR), which enables an organization to:

- Determine the technically optimal program structure; i.e., the combination of limit, retention and premium that most efficiently balances risk retention and risk transfer
- Objectively measure the value derived from different risk financing structures
- Decrease reliance on speculation, external benchmarking and rule-of-thumb assessments in making risk financing decisions
- Place insurance purchasing into the same capital efficiency framework as other investment decisions of the organization are made

PROCESS OVERVIEW

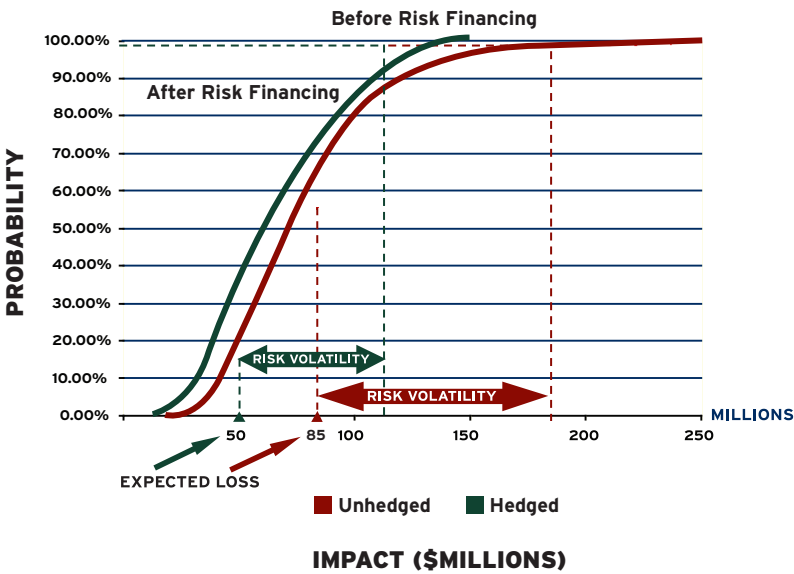
The foundation of CCoR analysis is the development of a credible loss probability distribution curve. Using traditional actuarial and/or proprietary risk modeling techniques along with relevant public domain data, frequency and severity parameters are established and run through simulation. Different combinations of limit and retention are then overlaid on the resulting probability distribution

of the uninsured risk to measure the value that each structure delivers. This process is illustrated in Figure 1, where the red curve represents the uninsured (unhedged) risk, and the green curve reflects the effect of a particular risk financing structure.

The value of each risk financing structure is objectively determined by a metric that includes the premium, the expected retained loss and the cost of volatility retained on the risk. Our method for measuring the cost of volatility reflects the reality that any retained loss in excess of the expected must be paid for somehow and will usually require capital to be diverted from elsewhere within the organization. All capital has a cost associated with it. Because the financial strength of a company and actual amount required will influence the cost of capital, CCoR analysis also takes into consideration the cost of using different capital sources (e.g., drawing down of an existing line of credit, issuing new debt or equities, selling common stocks, or in the most severe case, filing for bankruptcy or asset liquidation). As illustrated in Figure 2.

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FIGURE 1



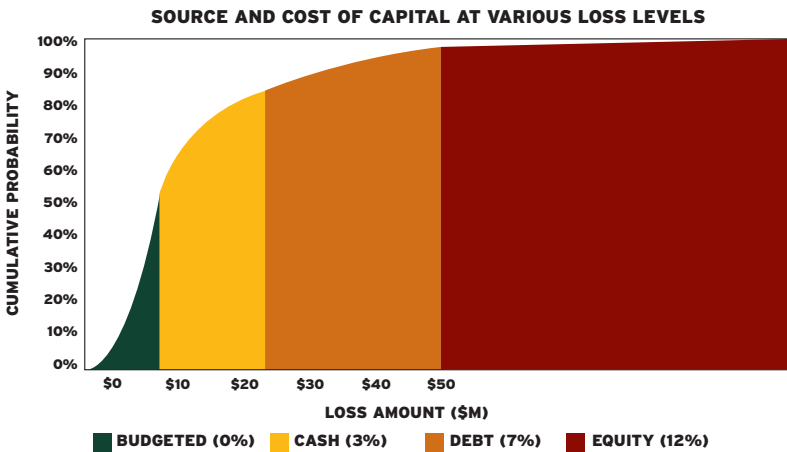
Output of CCoR analysis is usually represented in a bar chart as illustrated in Figure 3.

Once the CCoR analysis is completed and the technically optimal program structure has been objectively identified, we suggest then considering any other relevant, more subjective input to help make as informed a decision as possible.

ORGANIZATIONS WHICH CAN BENEFIT FROM CCoR ARE THOSE:

- Seeking a more objective and rational basis for risk financing decisions
- Interested in identifying what *should be* retained – not what *could be* retained
- Seeking optimal capital efficiency
- Dealing with new risks
- Interested in understanding their property/casualty risks in the context of the other major risks in the organization

FIGURE 2



CONTACT

For further information on this and other processes of the Willis Enterprise & Risk Finance Practice, please contact:

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FIGURE 3

