Risk Analysis and Applications

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Adoption of Enterprise Risk Management (ERM) programs is a strong and growing global trend that works equally well in all industry sectors. ERM overcomes the three core challenges that prevent traditional risk programs from achieving their full potential. These are the inability of these programs to quantify strategic and operational risks, the unclear definition of risk appetite and the lack of integration into business decision making. The goal of ERM is to better understand the shock resistance of the enterprise to its key risks, develop an appropriate risk management environment, make better risk adjusted decisions and ensure appropriate actions are implemented to better manage enterprise risk exposure to be within its risk appetite. There are many different approaches to ERM. One approach centers on measuring enterprise value. This internal enterprise value is used as a baseline best estimate of the value of the company. ERM then becomes an exercise of quantifying the volatility of the enterprise value and properly managing it to within the company's risk appetite.

This talk covers the development of an ERM framework, identification, quantification and management of risk within risk–bearing enterprises. It identifies the challenges to the traditional actuarial approach in modeling operational and strategic risks. It highlights the fact that each risk can occur under a number of wide-ranging scenarios and that interactivity between risks may vary for different scenarios. We emphasize the need to develop discrete risk scenarios for each of the key risks as a first step in the quantification process. The talk highlights the increasing importance of developing models internally in the company to provide a practical quantitative assessment of risk exposure that reflects a deep understanding of the company and its environment making the risk calculation more responsive to the actual state and ensure appropriate actions are implemented