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SOCIETY OF ACTUARIES

Entrepreneurial Actuaries Section

THE INDEPENDENT CONSULTANT

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Are You Prepared for CPD

ERM Executive Compensation

by Nian-Chih Yang

Executive Summary

Enterprise Risk Management (ERM) enhances a company's long-term stock growth. Executives' buy-in is essential for the success of ERM. The proposed Stock Performance Protection Plan (SPPP), with the inducement of stock performance floor protection, encourages the executives to fully participate in ERM. The insurance companies have a long history of partnership with their clients to manage the various risks their clients face. The SPPP can be the vehicle for the insurance companies to help their clients to control risks and attain long-term growth.

Problems

The disconnect of executives' compensation and employers' stock performance is considered a cause of the current financial crisis. The short-term view promoted by some compensation formulas hurts a company's long-term stock performance/growth. There are calls to only reward the executives for risk-adjusted performance and to make the executives share both sides of the stock performance. Awarding restricted stock to executives aligns a company's financial growth with the executive's personal interests, which brings about greater long-term growth (higher stock price).

The current crisis also casts ERM under an unfavorable light, with some doubting its usefulness. ERM is a mechanism that could have reduced the hardships many companies are facing. However, it can work only with the full support of the executives.

Many executives only pay lip service to ERM or other similar instruments. Executives want to see the proof of the benefit of ERM before providing their whole-hearted support, but this often turns into a

Attestation?

Koppel to Speak at SOA 2010 Annual Meeting & Exhibit

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chicken and egg situation. If they cannot see the immediate payoff of ERM, without other inducement, they would rather have free reign without consideration of ERM.

Solution

Insurance companies have great sway in molding public conducts. Insurance companies acting as partners with the entities they insured have improved safety records and lowered claims from accidents with initiatives such as regular review of company operating processes, setting up safety standards, and conducting regular safety inspections. Through benefit designs, underwriting requirements (e.g., preferred risk ratings), and claim processing standards, life insurance companies have also changed insureds' behavior (e.g., quitting smoking, exercising).

Through the SPPP's ERM effectiveness ratings (ERMer) mechanism, the insurer hopes to attain the executive's buy-in and effective execution of ERM. Aligning key executives' self interest with the employer's can increase the likelihood of reaching the employer's financial goals.

The SPPP provides a minimum floor for the performance of the restricted stocks. The protection only applies to a portion of the stocks awarded to the executive to ensure there are insurable interests involved, so the executive has as much incentive as the insurance company to see the employer's stock perform well.

The variables in the SPPP are restricted stock vesting period, strike price, employer matching percentage, employer matching dollar amount limit, floor protection designs, and ERMer table scores.

The floor protections are similar to the secondary guarantees used in equity index products. Instead of linking the protection to the performance of equity indexes, SPPP only links the protection to performance of single company stock.

The SPPP premium is paid jointly by the insured company (employer) and its executive. To encourage the executive's participation in ERM, the company matches, up to a maximum, the executive's self-selected SPPP premium contribution.

Design of the ERMer Table

Similar to a life ratings table, which is used to determine a life insurance premium, the ERMer table consists of credit and debit factors.

The unit premium for SPPP is lower for a better ERMer table score. The lower the premium, the more coverage the executive's contribution can buy. The executive has incentive to work with the insurer to perform effective ERM and achieve high ERMer score.

The ERMer table is designed to produce high scores for effective ERM practice and ensuing lower projected stock volatility s. The Black Scholes formula produces a lower option price with the lower volatility. The insurer can expect a lower claim cost of the protection than what the company would have to pay for the options from outside, because these options are derived based on the higher volatility assumption.

Similar to considerations for life underwriting table, level of details and preparation costs of the ERMer need to balance against the benefit of differentiation provided. The ratings table is not meant to be a set of static factors. All the factors need to be considered for their interrelationship.

Gross Premium Determination

The stock performance protections are basically stock put options. The insurance companies can purchase these options from the open market. There are counterparty risks involved (default risk of the issuer of options). The pure premiums (expected claim costs) for these options can be determined using the Black Scholes formula and also verified/confirmed by asking prices from the open exchanges for options. If all the other factors stay the same, lower volatility (reduced s through ERM) produces a lower option price.

Starting with the pure premiums, the gross premium is adjusted based on the company's scores of the ERMer table.

Instead of acquiring put options for the floor protections from external sources, the insurance company can choose to keep the risks (fully or partially) in-house if it has the capital to support them. The insurance company can also seek support from re-insurers. The re-insurers can participate/assist in the designing of the ERMer table among other support mechanisms and provide favorable reinsurance rates.

Benefit/ Risks/Opportunities

The SPPP generates benefits to all the participants of the contract. The employer attains long-term stock performance growth through effective ERM. The executive is rewarded for the stock growth with a floor guarantee. He/she also receives insurance company's advice/confirmation on executing ERM. The insurance company and its re-insurers can control the SPPP claim cost.

The board of directors in most companies determines the executive compensation formula. The board members on the compensation committee neither can be impartial nor have the knowledge to judge the executive's risk avoidance performance. The insurer plays the role of referee of executive's performance on executing ERM. The insurer has to do this evaluation accurately, since these ratings are used to estimate the expected claim cost.

Collapsed company stocks in employee stock ownership plans have caused much heartache in the current financial crisis. SPPP can be expanded to cover stock ownership plans for employees in general. It may breed new lives to this important retirement security instrument.

The current equity index products' viability rests on standardized design, low margins, and economy of size. The proposed SPPP provides performance protection for a single stock and may not have the premium volume to spread the fix expenses.

Since coverage involves company stocks, safeguards are needed to avoid treading on "insider trading" issues.

With sufficiently accumulated experience on SPPPs, studies can be performed to determine the correlation between effective ERM and employers' long-term growth. There have been talks of auditing company's ERM processes. The SPPP does one better with the insurer's candid evaluation of the employer's ERM effectiveness and endorsing it with a favorable premium for stock performance protection.

Staffs of insurance companies (e.g., actuaries, underwriters) are well trained to understand risks, manage risks and evaluate the execution of ERM. The hedging techniques are matured. As long as the insurers faithfully staying within their risk tolerance level, the risks they faced are limited. If the intellectual property rights for SPPP are established, competition from imitators can be limited.

Even though the SPPP is a specialty product, with the huge volume of stocks holding in both employee stock ownership plans and restricted stock plans, the potential premium for this product is substantial.

My Plan

I recently received a provisional patent for this product design. My goal is to make ERMer a well-known moniker and the ERMer score an important measurement of an executive's management capability. May one day executives will proudly list their "Super Preferred ERMer" in their resumes.

I will promote SPPP by presenting it at professional conferences and submitting articles to industry journals. Entering the EAS's contest will also gain some needed exposure.

Every month I will seek out the Marketing VP of a different insurer to implore his/her interest or advice on SPPP.

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