

Creating More Tail Risk in the Incentive Compensation Plan as a Risk Mitigation Strategy

By Joonghee Huh

As the recent financial crisis has witnessed, the current incentive compensation plans for company executives have not done an effective job in curtailing the executives' excessive risk taking behavior and encouraging them to take appropriate risk management actions in their strategic decision makings. This outcome could be largely attributed to the current compensation practice in which the executives do not participate sufficiently with negative performance of the company. This is a classic principal-agency problem, and this issue can be in part addressed by designing the compensation plan such that the executives' pay suffers more severely with poor performance of the company. With this design of the incentive compensation plans, the executives will have *incentives* to consider downside risk more seriously and establish appropriate risk management processes.

After debacles of several large financial institutions during the recent financial crisis, the compensation structures for the top executives have been more scrutinized, and as a result, there have been increasing tendency to make changes in the compensation plans to discourage irresponsible risk taking of the executives. For instance, there have been increasing uses of "claw-back" provisions in the pay, as mandated by the Dodd-Frank Act of 2010. The "claw-back" provisions could be a powerful tool if implemented appropriately, but the effective implementation would necessitate the compensation plan to clearly define triggers of the claw-back so that an occurrence of such event may not be legally disputable.

As an alternative to the "claw-back" provision which needs to reclaim payments from the executives in a future date, we propose potential optionality which can be embedded in the deferred incentive compensation structures so that the executives are exposed more substantially to tail risk scenarios through reduction in their pay amount. We discuss three possible optionality features that create such tail risk exposure for the executives. These proposed

features discussed in this paper are intended to complement the current deferred incentive structures such as deferred stock and deferred options which tend to reward upside of the company's performance but not sufficiently penalize downside.

First of all, we can introduce "barrier-option" style features into the deferred incentive compensation plan. For a knock-out type of the barrier option, the option value becomes null if the price of an underlying falls below a pre-defined barrier level. By adopting this feature into the compensation structure, the value of deferred stocks or options compensation can be designed to be worthless if the company's stock price falls below a certain threshold (i.e. barrier) during the vesting period. This barrier optionality can be designed to be triggered any time (i.e. American style) or at the end (i.e. European style) of the vesting period. Under this compensation scheme, the executives will tolerate moderate risk and loss but will have incentives to avert risk of a large financial loss that may cause the stock price to breach the threshold level.

With the "barrier-option" style feature, the pay amount changes abruptly at the threshold level below which the deferred stock/option becomes worthless. This may induce the executives to behave in a sub-optimal manner as they may be overly obsessed with ensuring the company stock price above this artificial threshold level. An alternative second approach would be making the pay amount to decrease less abruptly with under-performance of the company's stock price. One way of achieving this is through embedding additional "short put option" feature as part of the compensation plan. With this "short put option" feature, the executive pay is to decrease with the company's stock price, similar to the traditional deferred stock compensation structure where the compensation amount decreases or increases at the same rate as the company stock price. However, with additional

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“short put option” feature, the compensation amount can be designed to decrease at a faster rate than the company’s stock price below a specified threshold level. This design will also make the executives to be more adverse to the company’s underperformance.

The third possible feature that can be incorporated into the compensation structure is a “convertible deferred cash compensation” where the deferred cash compensation is to be converted into a fixed number of company shares if the stock price falls below a certain pre-determined level. This optionality can be either European or American style, depending on whether the convertibility is triggered by the stock price at the end of the vesting period or any time during the same period, respectively. With this type of compensation, the executives are not awarded for upside of the company’s performance, but only penalized for downside. This feature mirrors convertible bonds, and this type of the compensation plan may also help strengthen the company’s capital adequacy since the company’s obligation for cash compensation payment will disappear at the time the company may face capital shortage.

These three features suggested in this paper have commonality that they all make the executives to potentially partake more of the tail risk with the company’s performance. We do not intend to advocate any one type of the incentive compensation structure. If these features are appropriately implemented as part of the overall compensation package, the executives will likely be motivated to consider the downside risk more seriously in order to prevent dire personal consequences with their poor business decisions. These proposed features should be used in balance with existing compensation programs, since excessive use of these features may result in unintended consequence of stifling intelligent risk taking behavior of the executives. Actual implementation of these features in the executives’ compensation program may face some practical constraints and challenges. However, effective use of these tools can at least provide a partial but meaningful solution to this classic principal-agency problem of misalignment between the executives’ interest and that of shareholders by making risk management to be more of the executives’ personal interest.

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