Taking Stock of Corporate Risk-Taking

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The relationship between equity incentives for C-level executives and company performance has received enormous attention due to the cost to shareholders of the compensation awarded to top executives. An often neglected — but potentially more important — question is whether equity incentives influence executives’ risk-taking in ways that are detrimental to the company.

In a recent study, we undertook an in-depth analysis of the relationship between CEO equity incentives and strategic risk decisions in the life sciences sector, a sector in which executives typically receive a higher proportion of their compensation in equity incentives. This study offers unique insights to boards and the board subcommittees tasked with executive compensation and risk management. Most notably, we find that the equity incentives held by CEOs may induce bias in their recommendations with respect to major strategic decisions. To counter this bias, boards need to consider, in tandem, both the mix of equity incentives and the level of risk inherent in the decision.

Stock Versus Options Is an Important Distinction

In our research, we looked at the effects of the two major equity incentives offered to C-level executives: options to buy company shares at a set price (aka options) and outright share ownership (aka stock).

Awarding options often encourages risk-taking. Think about it this way: If a company’s stock price is languishing far below the price at which options can be exercised, an executive is more likely to pursue a high-risk strategy. From the executive’s perspective, if the strategy succeeds, the stock price soars, along with the value of said options. If the strategy fails, the executive’s options simply remain as worthless as they were before. While this may encourage aggressive risk-taking, the potential collateral damage for the organization can be high.
In direct contrast to options, the payoffs from the second major equity incentive, stock, are inherently tied to both increases and decreases in the company’s stock price. Executives with a large amount of stock naturally become more concerned about the potential downsides of risk-taking. Without the one-way-bet mentality encouraged by options, executives become more risk averse as they seek to protect their wealth.

Related Research

How Equity Incentives Impact Risk-Taking and Fuel Bias

We set out to discover whether and how equity incentives of executives in the life sciences sector influence the licensing of discoveries to external parties, given that licensing decisions hold significant business impact in this industry. Licensing allows companies to gain additional revenues, leverage external resources, improve market access, and preempt the activities of competitors. However, licensing is also incredibly risky, with reported failure rates of between 60% and 70%. In particular, by licensing, companies risk losing control of their hard-won discoveries and jeopardizing revenues in their existing product market.

We undertook a study of 391 licensing agreements by 86 publicly listed life sciences companies. To begin, we assessed the risk inherent in each licensing deal. Then we examined the compensation package of each company’s CEO, with a particular emphasis on equity incentives. In our analysis, we controlled for a range of other factors that might impact the licensing decision. Using a wide range of state-of-the-art statistical techniques, we found that as licensing became riskier, options-based CEO compensation encouraged licensing. In contrast, as licensing became more risky, CEO stock ownership discouraged licensing. This is an important finding, as our study clearly reveals how, as the riskiness of a decision changes, CEO equity incentives have a direct impact on that decision.

Three Steps Boards Should Take

We propose a three-stage process that boards can implement when evaluating the recommendations made by the CEO with respect to any major strategic decision.

1. Scrutinize the CEO’s equity incentives. CEOs typically have a mix of both options and stock in their compensation packages. For options, the board should assess the extent to which the exercise price of CEO options is above the current stock price (“in the money”) or below it (“out of the money”). The board also needs to carefully study the earliest exercise date of existing options, as those that are already exercisable are far more important to the CEO than those with an exercise date several years into the future. In addition, the board also needs to scrutinize the CEO’s stock awards. Some stock awards are conditional on the CEO remaining with the company for several years into the future and may also have substantial performance conditions attached. Other stock awards will be close to vesting, while many prior stock awards will have already crystallized into tradeable stock.
2. Establish the riskiness of the decision. Having examined the CEO’s compensation package in detail, boards should assess the riskiness of the specific decision under consideration. In our study, we sought to find a set of indicators that captured the risk associated with each licensing opportunity in the life sciences sector. For companies in that sector, experience with licensing in prior years was the most important indicator of the riskiness of the licensing proposal currently being evaluated. The organizational routines and experiences that companies had built up around prior licensing activities played a key role in reducing both the risk — and perceived risk — associated with new licensing opportunities. In other sectors, past experience may not be a sufficient — or even a relevant — indicator of project riskiness, and project-specific risk measurement paths need to be mapped out. For example, boards of companies which are traded on the stock exchange may use conventional measures of risk such as share price volatility as a key metric. While this work may entail detailed quantitative analysis, boards should seek to identify a few crucial indicators that are sufficient to provide an adequate measure of riskiness.

3. Chart a decision-riskiness-equity incentive matrix. Having successfully carried out the previous two steps, the board needs to combine the information gathered into a matrix where both concerns — the CEO’s equity incentives and the project’s riskiness — are considered in tandem. (See “CEO Decision Incentive Matrix.”)

From there, boards can better assess the executive’s positioning with regards to strategic risk and equity incentives. In the case of our example, the following takeaways would be important:

- Unless the board has made a clear strategic choice regarding the aggressive pursuit of high-risk opportunities, they need to be aware that, for Cell A, executives are likely biased toward project acceptance.
- When it comes to executives weighing decisions for Cell B, executives are likely biased against project acceptance, and boards should reflect on whether this is in keeping with the company's overall risk appetite.
- Boards need to be aware that, for Cell C, executives are likely biased against project acceptance.
- Boards need to be aware that, for Cell D, executives are likely biased toward project acceptance, notwithstanding that lower risk may also imply lower potential returns.

In summary, boards should first be aware that the CEO’s recommendations with respect to major projects need to be evaluated in the context of their equity incentives and the project’s riskiness. Second, the process of analysis...
described above can provide important guidance in ascertaining the likely direction of the CEO’s biases and in highlighting potential red-flag situations. Third, having implemented our three-stage process, the board may feel it appropriate to recalibrate the mix of CEO equity incentives to better match the board’s attitude toward risk. Finally, as other senior executives can also have an important bearing on major decisions, the analysis described here can also be extended to encompass all C-level executives.
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