

UK Executive Stock Option Valuation: A Conditional Model

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Abstract

We value UK executive stock options (ESOs) as American on European options conditional on the probability of the holders achieving some performance criteria. Unlike the standard Black and Scholes (BS) model, which is universally used both in the literature and practice, this provides a more realistic representation of UK ESOs. We show that UK ESOs actually have less value and contain more incentives than they appear under the BS approach. Specifically, we observe an 18% average discount in the value of the ESOs when compared to their BS value. In addition, we find a significantly higher incentive level when the pay-performance sensitivity (PPS) is measured with our model. Furthermore, we observe significantly higher corporate performance among CEOs with higher PPS under the conditional valuation than the BS approach. This implies that our model captures ex-post performance related incentives beyond the BS approach. We argue that these findings have implications for two contemporary debates in the UK, i.e. the substitution of ESOs by Long-Term Incentive Plans (LTIPs) and the discounting of ESO value from company profits.

JEL classification: G30, J30, J33

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