New academic research suggests public company executives might be more likely to take on heavier loads of risk when their compensation is based more on stock options than outright stock awards.

Options may represent a form of equity compensation, but the value proposition is just different enough that executives might be incentivized to take on more risk for the company to realize greater value from their option awards, says an emerging academic study to appear in a journal of the American Accounting Association. The study examines the role of equity-based holdings, such as stock, compared with stock options in determining what kinds of incentives CEOs might have to smooth over earnings so as to reduce the volatility of reported earnings.

Compensating executives with stock is intended to align executive interests with shareholders. Options are a form of equity-based compensation, but they offer a “convex payoff structure,” the study says, where the value of the option to the executive holding it has a positive relationship to the volatility of the expected payoff.

“Managers therefore benefit proportionately more from engaging in risky actions in the presence of option holdings,” the study says. “Consistent with managers attempting to hide their excessive risk-taking activities (i.e., highly volatile performance), we find that the relation between income smoothing and future earnings predictability decreases with option holdings.”
The study, by Sydney Qing Shu of San Diego State University and Wayne R. Thomas of the University of Oklahoma, is based on 17 years of financial results reported by approximately 1,700 companies. The research examines the smoothing of income by measuring changes in a company’s net income relative to changes in discretionary accruals, which are non-cash accounting line items that involve some measure of uncertainty. That might include, for example, future receipts from accounts receivable or estimates of inventory value—areas that are subject to estimates and judgments, which suggests they could be manipulated.

The analysis determines that a pattern of income smoothing over five years before a given year in financial statements makes the income for the next three years more predictable. However, when the analysis takes into account CEO compensation, it finds differences for CEOs holding more stock compared with those holding more options. “As stock holdings increase, the association between past income smoothing and predictability of future earnings increases,” the authors report. “As option holdings increase, the association between past income smoothing and predictability of future earnings decreases.”

That finding suggests stock-holding executives are more likely to use discretionary accruals to smooth over fluctuations in reported earnings caused by temporary items to give investors a better understanding of underlying performance, while option-holding executives are more likely to use discretionary accruals to mask the volatility of risky operations.

The results give investors some insight into whether to be comforted or disturbed by smoothly rising earnings, the study says. “Check the CEO’s relative holdings of options and stock,” says Shu in a statement. “If the options dominate, proceed with caution.”