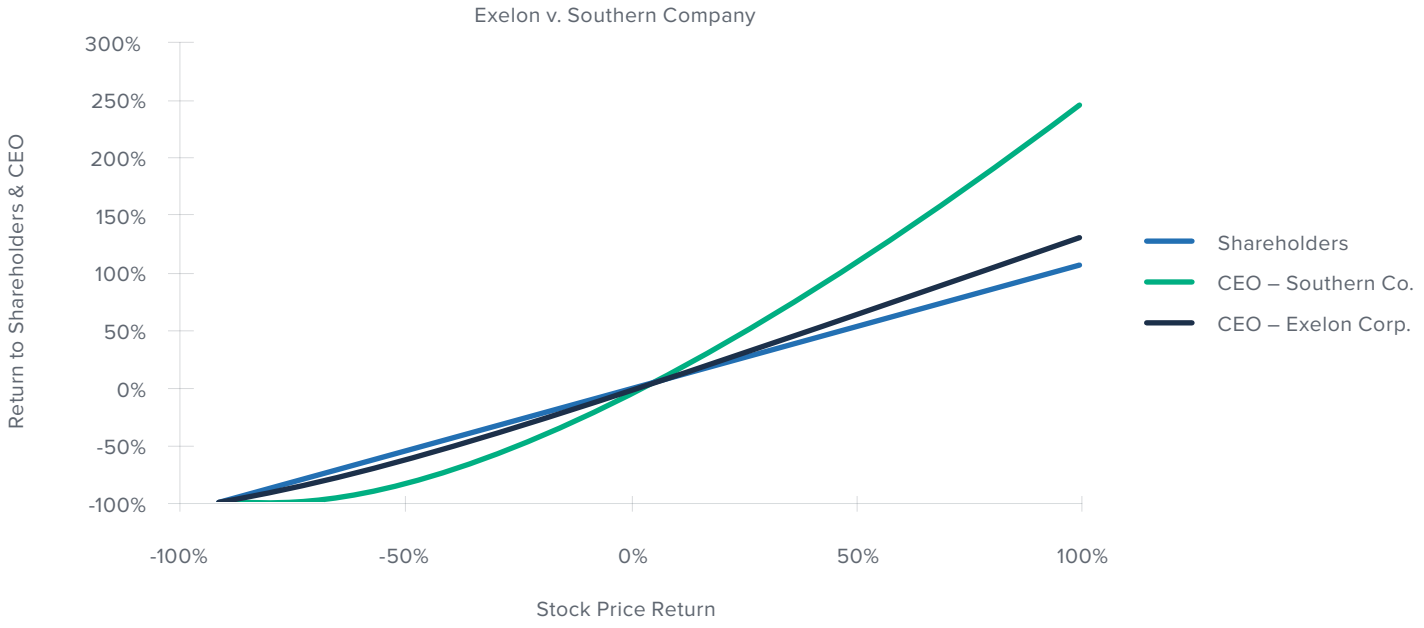
TOOLKIT: COMPUTATION AND INTERPRETATION OF WEALTH SENSITIVITY INDICATOR

An example, from David Larcker and Brian Tayan at the Center for Leadership Development and Research, Stanford University, compares the effects of changes in share price on executive and shareholder wealth (exhibit 9).[43] The wealth profiles of three CEOs from three utility companies, Southern Co–Georgia Power, Exelon–ComEd, and Dominion Generation, are mapped for the results of 50 percent and 100 percent changes in stock price. The profile of Southern Co's CEO is much more convex compared to that of Exelon, while Dominion's CEO can expect changes in wealth to match those of shareholders. This type of analysis brings to light how stock options can alter a wealth profile. "Payout curves with high convexity may encourage more risk taking, while payout curves with less convexity may encourage less risk taking."[44] Wealth sensitivity is best interpreted in the context of strategy, investment, and whether incentives seem aligned with the type of company, its age, and the nature of risk in its industry.

Exhibit 9. The Mix of Options and Restricted Shares Strongly Impacts Risk Profile



Company	Market Cap ($ thousands)	Total CEO Pay ($)	Total CEO Wealth ($)	▲ Wealth (50% change)	▲ Wealth (1000% change)
Southern Co.	28,659,000	2,246,000	3,620,000	110%	235%
Exelon	36,587,000	1,236,000	4,010,000	60%	123%
Dominion Resources	20,835,000	3,275,000	5,510,000	50%	100%

Source: David F. Larcker and Brian Tayan. "Sensitivity of CEO Wealth to Stock Price: A New Tool for Assessing Pay for Performance." Stanford Closer Look Series. Stanford University, September 15, 2010. https://www.gsb.stanford.edu/sites/default/files/publication-pdf/cgri-closer-look-10-ceo-wealth-stock-price.pdf.

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The previous example provides a graphical approach to visualize executive wealth versus that of shareholders. Computations for this approach would simply consist of valuing executive shares and options given changes in share prices, and graphing them against stock price return (*x*-axis) and return to shareholders and CEO (*y*-axis).

To take this analysis a step further, a wealth indicator can be calculated. Equation (3) shows an interpretation of the approach described by Edmans, Gabaix, and Landier (2009):[45]

(3) $$Wealth\ Sensitivity = \frac{1}{w_t}\ [Shares\ of\ Stock \times P + Number\ of\ Options \times \frac{\partial V}{\partial P} \times P\ ],$$

where w_t is the expected value of total compensation as of its grant date, P is stock price, and *Shares of Stock* includes all previously vested shares of stock. *Number of Options* can be interpreted as the number of options held as well as unvested share and option grants. The term $\partial V/\partial P$, or option delta, is the change in value of each award given a 1 percent change in stock price. Stock price P can be modified for different changes in stock price to show different sensitivities in wealth; here the baseline is 1 percent, but one could choose 10 percent or other figures for comparison.