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Policy Brief

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Stock Options – It's Not Just About Motivation

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As a result of recent corporate scandals where incentive plans allegedly drove employees to corrupt behavior, we are in the midst of a heated policy debate about the proper way to account for stock options. Neither standard accounting procedures nor government regulation requires firms to treat the cost of option grants as an expense on their income statements. Many shareholders and regulators worry that this leads managers to think of options as "free" and to distribute them overly generously.

I find this debate somewhat disappointing because it misses the key economic question: Why are firms issuing options in the first place? The standard answer to that question is that stock options provide incentives for employees to exert effort and to make better decisions. They align the interests of workers and shareholders. I certainly believe provision of incentives is an important reason firms make large stock option grants to their senior executives. Executives make important decisions that affect their firms' stock prices on a regular basis, and it is undoubtedly in the shareholders' best interests to give the executives a stake in making those decisions optimally.

But what about rank and file workers? Many companies with thousands of workers give stock options to all their employees. While broad distribution of stock options may give the employees at these firms a feeling of "we're all in this together," an individual worker at these firms cannot make any substantial amount of money through his or her own actions. Consider the following example based on a dataset of option plans that I used in a recent paper.[1] A typical middle manager at a software firm with 2,000 employees in this sample makes about $90,000 per year in salary and owns options that, if exercised, would make the manager owner of about 0.006% of the firm. This manager might be a fairly recent MBA graduate and she may become a key decision maker at the company some day, but she is not yet very influential. Suppose her options induce her to regularly stay late at the office, work on weekends, and spend less time surfing the Internet during work hours so that her work

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will be of higher quality. And suppose, being fairly generous, that this hard work creates $1 million of shareholder value in her first year at the firm. But, out of this $1 million, at most the middle manager captures 0.006%. That is a grand total of $60!

In a bull market (remember those?) the middle manager may well get rich. But it will not be because of her own efforts, but rather because of the performance of the firm as a whole. Given that the options granted to this manager cost shareholders a substantial amount of money, regardless of whether that cost shows up on the firm's income statement, there are much more cost-effective ways for the firm to provide this manager with incentives to work hard than to grant her stock options.

Value Without Incentives

Does that mean that I think broad-based stock option plans are a bad idea and that firms that have these plans are making a mistake? No – I do not think this can be the case, given that these plans have been quite common for a long time among highly successful firms in human capital intensive industries. If they were always a mistake, the firms with broad option plans would have been put out of business long ago. I believe that the value of option grants, at least those below the most senior executive ranks, comes from their ability to automatically keep compensation costs in line with market rates (the "retention" effect) and from the fact that firms can save money by paying optimistic employees through stock options (the "sorting" effect).

The key to the retention effect is that options vest over a period of time. For example, if an employee is granted 1,000 options when she starts a job, she might be allowed to exercise 250 options after each of the first four anniversaries of her employment with the firm. Naturally, this deferral of compensation is likely to lower any incentive she has to take a new job before her options vest. However, deferred compensation *in the form of options* has an additional advantage. Suppose the employee works at a software firm here in Silicon Valley. And suppose that a year or two after she starts at this firm, the software industry is doing very well. She may get some attractive offers from rival software firms. But, just as the rest of the industry has done well, her employer has probably been doing well. The value of her unvested options is particularly high at exactly the same time as she is receiving attractive offers and, therefore, an increase in her temptation to leave is countered by an increase in her incentive to stay.

While options help reduce turnover in good times, I think benefits to Silicon Valley firms of granting options actually have been even greater in the recent downturn. If software firms had issued no stock options during the robust job market of the late 1990s, they would have paid substantially higher salaries. As the labor market has softened over the last few years, firms can offer less lucrative pay and option packages to new employees. But those firms that granted options a few years ago have not had to go through the very painful and costly process of lowering existing employees' salaries. The stock market has taken care of this for them by cutting the value of the employees' options.

Options Are Not For Everyone

Note that this retention effect is only valuable to a firm if its employees' market wages are correlated with the firm's stock price. In Silicon Valley or Redmond, Washington, this condition holds for most workers in technology firms because the local economy is tied to the fortunes of the technology industry. Options can be a cost-effective retention tool even for lawyers, secretaries, and other employees whose skills are transferable to other industries because the entire labor market is sensitive to the ups and downs of technology firms. But Coca-Cola or Ford, for example, would not benefit from offering options to its employees who are located in Silicon Valley. The value of options held by these employees would fluctuate with the soft drink or auto industry, but their labor market opportunities would be driven largely by the technology market.

While the retention effect helps manage compensation expense over an employee's career, the "sorting effect" helps firms save money by attracting certain workers. Options can be an efficient form of compensation when there is variation in how potential employees value stock options. If there are substantial numbers of people with optimistic beliefs about a firm or its industry, the firm can attract these employees at a lower total cost than if it had to pay them completely in cash. There are undoubtedly many fewer employees who are optimistic about the typical firm's stock than during the Internet boom. As a result, option grants are likely to be less successful at cutting some firms' compensation costs than they were a few years ago.

Options are a compensation cost and can be used strategically to manage turnover and employment costs. Because the primary goal of accounting systems is to do the best job possible of reflecting the costs and benefits of decisions, expensing options will better reflect the true profitability of a firm and managers will make better decisions. One argument that is often put forth against expensing stock options is that they cannot be perfectly valued at the time they are issued. While that is certainly true, there are many valuation techniques available that are admittedly imperfect but clearly would reflect the cost of options more accurately than the current valuation of zero.

Options for the Future

As an empirical economist who studies firms' compensation policies, I look forward to studying how option-granting practices change when managers cannot think of options as "free." My guess is that changes in accounting treatment may induce some firms to switch from options to restricted stock grants or other less risky forms of equity sharing. But I think there are many firms for whom the retention and sorting benefits of option grants have been substantial. These firms may change their behavior somewhat if forced to expense their options, but they should look at those potential changes as an opportunity to make better compensation decisions.

About the author

Paul Oyer is an Associate Professor of Economics at Stanford University's Graduate School of Business. His research focuses on the economics of compensation, displacement costs, and downsizing. His longer papers analyzing broad-based stock options plans, "Why Do Some Firms Give Stock Options To All Employees?: An Empirical Examination of Alternative Theories" and "Why Do Firms Use Incentives That Have No Incentive Effects?" are available at http://faculty-gsb.stanford.edu/oyer/home.htm.

Prior to coming to Stanford in 2000, Oyer was on the faculty of Northwestern University's Kellogg School of Management. He received a BA from Middlebury College, an MBA from Yale University, and a PhD from Princeton University.

[1]The paper, "Why Do Some Firms Give Stock Options to All Employees?: An Empirical Examination of Alternative Theories,"–is co-authored with Scott Schaefer from the Kellogg School at Northwestern University and is available at http://faculty-gsb.stanford.edu/oyer/home.htm. The data is from a survey conducted by the National Center for Employee Ownership. I thank the NCEO's executive director, Corey Rosen, for sharing the data.