

The Trouble with Stock Options

Brian J. Hall and Kevin J. Murphy

The most pronounced change in corporate compensation practices over the past decade is the escalation and recent decline in executive and employee stock options. In 1992, firms in the Standard & Poor's 500 granted their employees options worth a total of \$11 billion at the time of grant; by 2000, option grants in S&P 500 firms increased to \$119 billion.¹ In 2002, option grants in the S&P 500 fell to \$71 billion, well below their peak, but still a six-fold increase from a decade earlier. Despite—or perhaps because of—their growing importance, employee stock options have become increasingly controversial.

The main argument in favor of stock option plans is that they give executives a greater incentive to act in the interests of shareholders by providing a direct link between realized compensation and company stock price performance. In addition, offering employee stock options in lieu of cash compensation allows companies to attract highly motivated and entrepreneurial employees and also lets companies obtain employment services without (directly) expending cash. Options are typically structured so that only employees who remain with the firm can benefit from them, thus also providing retention incentives. Finally, stock options encourage executive risk taking, which can mitigate problems with executive risk aversion.

But the incentives provided by stock options have also been criticized. The recent accounting scandals at Enron, WorldCom, Global Crossing and other com-

¹ Option values are in 2002-constant dollars and are based on Compustat's ExecuComp data; see Figure 1 below for calculation details. Data are not available for all S&P 500 firms; the total for S&P 500 firms is estimated as 500 times the average grant for S&P 500 firms with available data.

■ *Brian J. Hall is Professor of Business Administration, Graduate School of Business, Harvard University, Boston, Massachusetts. Kevin J. Murphy is E. Morgan Stanley Chair in Business Administration, Marshall School of Business, University of Southern California, Los Angeles, California.*

panies have been linked to excessive risk taking and an excessive fixation on stock prices, both allegedly caused by the escalation in option grants (Cassidy, 2002; Madrick, 2003). Moreover, these scandals have focused attention on problems with current accounting practices, which in turn has opened a debate on the accounting treatment of employee stock options. Under current U.S. accounting rules, companies generally do not treat options as an expense on company financial statements. Proponents of expensing options argue that expensing will generate more informative financial statements and improve the credibility of reported earnings. Opponents of expensing worry that expensing will cause companies to grant fewer options, especially to lower-level employees, which in turn will “destroy the engine that fueled the economic growth” of the 1990s.

In this article, we explore the trouble with stock options. We begin by describing patterns in employee options since the early 1990s and by describing the relevant tax and accounting rules; we later argue that these rules help explain the widespread use of option-based pay. Next, we analyze the efficiency of providing compensation and incentives using stock options, focusing on the fact that risk-averse and undiversified employees will value options significantly less than they cost the company to grant. We identify several problems with options granted to top executives and even more problems with options granted to lower-level employees. These conclusions deepen the question of why grants of options have increased so dramatically, especially among rank-and-file workers. We consider several explanations for the recent trends in option practices, including changes in corporate governance and tax laws, managerial influence over their own pay packages, the bull market in equities of the 1990s and our preferred hypothesis that the perceived cost of options to boards and managers is lower than the actual economic cost of granting such options.

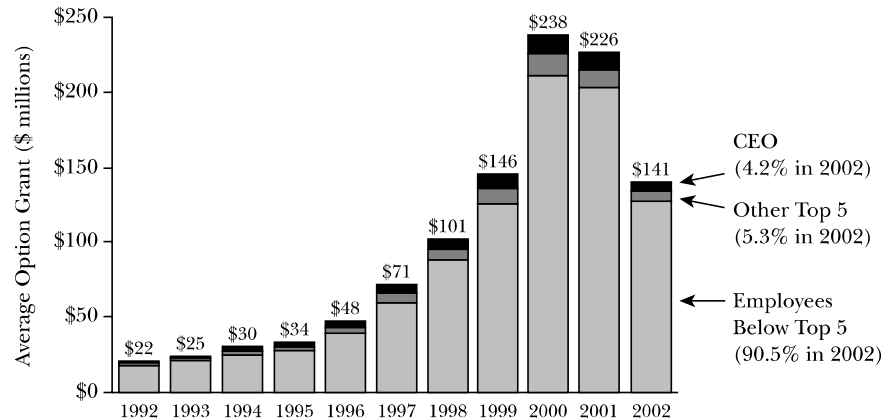
A Brief Primer on Stock Options

Employee stock options are contracts that give the employee the right to buy a share of stock at a prespecified “exercise” price for a prespecified term. Most employee stock options expire in ten years and are granted with an exercise price equal to the market price on the date of grant. Typically, a grant of stock options cannot be exercised immediately, but only over time; for example, 25 percent might become exercisable in each of the four years following grant. When a stock option can be exercised, then the option is said to be “vested.” Employee options are nontradable and are typically forfeited if the employee leaves the firm before vesting (although “accelerated vesting” is a commonly negotiated severance benefit for top-level executives, especially following a change in control).

When an employee exercises an option, the company typically issues a new share, which increases the number of shares outstanding. Although some companies require employees to pay exercise prices in cash, most companies offer “cashless exercise programs,” where the employee pays nothing and simply receives the value of the spread between the market price and the exercise price either in cash or in shares of company stock.

Figure 1

Grant-Date Values of Employee Stock Options in the S&P 500, 1992–2002



Notes: Figure shows the grant-date value of options (in millions of 2002-constant dollars) granted to all employees in an average S&P 500 firm, based on data from S&P's ExecuComp data. Grants below the top 5 are estimated based on "Percentage of Total Grant" disclosures; companies not granting options to any of their top five executives are excluded. Grant-values are based on ExecuComp's Black-Scholes calculations. The number in parentheses indicates the fraction of the grant, on average, that is awarded to the indicated employee (or employee group). Fiscal 2002 results are based on the April 2003 "cut" of ExecuComp, which includes only companies with fiscal closings in December 2002 or earlier.

Trends in Stock Options Since the Early 1990s

Figure 1 shows the average inflation-adjusted grant-date values of options granted by the average firm in the S&P 500 from 1992 to 2002. Over this decade, the value of options granted increased from an average of \$22 million per company to \$238 million per company by 2000, falling to \$141 million per company in 2002. Although the exact percentages have varied from year to year, the chief executive officer's (CEO's) share of the total grant has fallen from about 7 percent of the total in the mid-1990s to under 5 percent in 2000–2002. Managers and employees below the five top executives have received an increasing share of the total grant: grants to this group have grown from less than 85 percent of the total in the mid-1990s to over 90 percent by 2002.

The average real pay for chief executive officers of S&P 500 firms skyrocketed during the 1990s, growing from \$3.5 million in 1992 to \$14.7 million in 2000. Most of this increase reflects the escalation in stock options valued at time of grant, which grew nine-fold from an average of about \$800,000 in 1992 to nearly \$7.2 million in 2000. (In contrast, other components of total compensation merely tripled during this period.) Average real CEO pay in the S&P 500 tumbled to only \$9.4 million in 2002, driven by a 40 percent two-year drop in the value of options granted.

The escalation in pay of chief executive officers during the 1990s is well known and highly scrutinized. Less well recognized, but evident from Figure 1, is the fact that the escalation in option grants was not restricted to CEOs or even to top-level executives. The increase in employee stock options has occurred across a wide

Table 1

Option Grants as a Percentage of Outstanding Shares and as Value per Employee, by Industry, 1993–2001

<i>Fiscal Year</i>	<i>Panel A. Percentage of Outstanding Shares Granted in Options in Each Year</i>				<i>Panel B. Average Grant-Date Value of Options per Employee (below top 5) for all Employees in Industry</i>			
	<i>Old Economy</i>	<i>New Economy</i>	<i>Finance</i>	<i>Utilities</i>	<i>Old Economy</i>	<i>New Economy</i>	<i>Finance</i>	<i>Utilities</i>
1993	1.8%	4.2%	1.7%	0.9%	\$522	\$1,684	\$1,007	\$271
1994	1.8%	4.2%	1.9%	0.9%	\$633	\$1,855	\$1,570	\$383
1995	1.9%	4.3%	1.8%	0.9%	\$655	\$2,533	\$1,310	\$388
1996	2.1%	5.2%	2.0%	1.0%	\$904	\$3,834	\$2,005	\$690
1997	2.3%	6.4%	2.3%	0.9%	\$1,162	\$6,021	\$3,365	\$518
1998	2.7%	7.1%	2.5%	1.2%	\$1,376	\$7,334	\$5,060	\$649
1999	2.8%	6.6%	2.2%	1.5%	\$2,169	\$11,838	\$5,259	\$1,797
2000	2.9%	7.4%	2.4%	1.5%	\$2,559	\$26,690	\$4,806	\$1,385
2001	2.6%	6.4%	2.5%	1.4%	\$2,856	\$18,882	\$5,562	\$2,933

Notes: Data are from Compustat's ExecuComp database and include data from firms in the S&P 500, the S&P Mid-Cap 400 and the S&P SmallCap 600. New economy firms are defined as companies with primary SIC codes 3570, 3571, 3572, 3576, 3577, 3661, 3674, 4812, 4813, 5045, 5961, 7370, 7371, 7372 and 7373. Old economy firms are firms with SIC codes less than 4000 not otherwise categorized as new economy. Financial services firms have two-digit SIC codes between 60 and 69; utilities have two-digit SIC code of 49. Utilities option values based on average value of options granted to top 5 executives, using ExecuComp's modified Black-Scholes methodology.

range of industries, but is especially pronounced in the so-called “new economy” firms related to computers, software, the Internet, telecommunications or networking. The first four columns of Table 1 show option grants as a percentage of company stock for four industry groups and for companies in the S&P 500, S&P MidCap 400 (Standard & Poor's representative portfolio of 400 mid-size firms) and S&P SmallCap 600 (Standard & Poor's representative portfolio of 600 smaller firms). Between 1993 and their peak in 2000, grants in “old economy” firms increased 44 percent, from 1.8 percent of outstanding shares to 2.9 percent, while grants in “new economy” firms increased 75 percent, from 4.2 percent to 7.4 percent; grants in financial services firms and utilities increased by about 50 percent.

The second four columns of Table 1 show the inflation-adjusted dollar value of grants per employee in four industries, excluding grants made to each company's five top executives.² Grant values for the average employee in old economy firms increased from \$522 in 1993 to nearly \$2,900 in 2001, while grant values increased from \$1,684 to nearly \$19,000 per employee in new economy firms. At their peak

² The average grant value is determined by dividing the total value of grants in each industry (in 2002-constant dollars, after excluding grants to the top five executives) by the total number of employees in the industry. Companies not granting options to their top five executives are excluded from this analysis.

in 2000, the average employee in a new economy company received options worth nearly \$27,000.

The data in Figure 1 and Table 1 do not quite reveal the increased prevalence of “broad-based” option plans that cover all or most company employees, because the group “below the top five” includes senior executives as well as the rank and file. However, according to the National Center on Employee Ownership (NCEO), between seven and ten million employees in U.S. firms held options in 2000, compared to only one million in 1992. Oyer and Schaefer (2002) estimate that options are distributed to more than half of employees in 43 percent of all public firms (but this covers only about 6 percent of public firm employees, since smaller companies are more likely to offer options to a broader base).

Tax Rules Affecting Stock Options

Although economists have generally focused on the incentive aspects of employee options, the popularity of stock options reflects in large part their favorable tax and accounting treatments, which we believe are critical in understanding why, how and to whom options are granted.

Under U.S. tax rules, the granting of a stock option does not constitute a taxable event for either the company or the employee. What happens later depends on whether the options are “qualified” (called Incentive Stock Options, or ISOs) or “nonqualified.” For nonqualified options, the spread between the market and exercise price upon exercise constitutes taxable personal income to the employee and a compensation-expense deduction for the company. For qualified options, the employee pays nothing upon exercise and pays capital gains taxes when eventually selling the stock; the corporation, however, cannot deduct the gain on a qualified option as a compensation expense. As a result of this loss of deductibility, combined with the fact that qualified options involve holding requirements (recipients must hold the stock for at least one year after exercise) and other limits and restrictions, most employee option grants are nonqualified.

Tax laws enacted in 1994 indirectly affected option-granting practices. Under Section 162(m) of the Internal Revenue Code, compensation in excess of \$1 million paid to “proxy-named executives” (typically, the company’s five highest-paid officers) is considered unreasonable and no longer deductible as a corporate compensation expense. However, Section 162(m) does not impose limitations on “performance-based” compensation, including payments from exercising options. This new law made stock options relatively less expensive than, say, base salaries or stock grants and may therefore help to explain the explosion in executive option grants in the 1990s.

Option Accounting

Corporations in the United States keep two separate ledgers of revenues and expenses, one for tax purposes and one for accounting purposes. Although gains from exercising nonqualified options are treated as an expense for tax purposes, there is usually no accounting expense recorded for options either at time of grant or exercise.

The accounting rules governing employee stock options are established by the Financial Accounting Standards Board (FASB) and its predecessor, the Accounting Principles Board (APB). Under APB Opinion 25, issued in 1972, the accounting charge for stock options equals the difference between the market price of the stock and the exercise price on the date that both the exercise price and the number of options becomes known or fixed. There is no charge for options granted with an exercise price equal to (or exceeding) the grant-date market price, because the spread is zero on the grant date. Notice that this rule would impose a higher accounting charge for options with an exercise price indexed to the market, because the exercise price is not immediately fixed. It would also impose a higher accounting charge for options that only become exercisable if certain performance triggers are achieved, because the number of options is not immediately fixed.

In 1995, the Financial Accounting Standards Board issued FAS 123, which recommended that companies treat as an expense the “fair market value” of options granted (using Black-Scholes or a similar valuation methodology). However, FASB also allowed firms to continue reporting under APB Opinion 25, with the additional requirement that the value of the option grant would be disclosed in a footnote to the financial statements. Until late 2002, only a handful of companies adopted FASB’s recommended approach. However, by early 2003, following several accounting scandals that focused attention on accounting problems, more than 200 companies had voluntarily begun to expense options.

Companies with declining stock prices have routinely “repriced” their existing employee stock options, either by resetting the exercise price or (equivalently) by replacing old options with new options with a lower exercise price. In December 1998, FASB imposed “variable accounting,” where the accounting charge adjusts over the vesting period based on realized stock prices, for companies repricing their options.

Are Options Efficient?

With few exceptions, the theoretical and empirical research on employee stock options treats options as part of an optimal incentive arrangement that mitigates agency problems between shareholders and self-interested managers by tying pay directly to stock-price appreciation. But most options are granted to employees well below the top-executive level, and many firms offer options to all employees. Given the increasing prevalence of broad-based plans, a compelling theory of employee stock options must explain not only executive stock options, but also options granted to the rank and file.

Are options, as typically structured, the most efficient way to attract, retain and motivate top-level executives whose actions directly affect stock prices? Also, are options plausibly an efficient way of attracting, retaining and motivating workers whose influence on stock prices is difficult to quantify or detect? Answering these questions requires considering the distinction between the cost of options to the firm and the value of options to executives and employees and analyzing the incentives that stock options provide for both top managers and the rank and file.

The Gap Between Cost and Value of Stock Options

The cost to a firm of granting a stock option is larger than the value of the stock option to the employee receiving it. The economic or “opportunity” cost of an option to a firm can be envisioned in several ways. For example, the cost of options to shareholders is the amount the company would have to pay an outside investor to accept the financial liability of options granted to employees. Equivalently, the cost of options is the amount an outside investor would pay for the option, assuming that the outside investor faced the same exercise and forfeiture patterns of company employees. After downward adjustments for potential forfeiture and early exercise, standard methodologies such as Black and Scholes (1973) or binomial option pricing formulas provide reasonable estimates of what an outside investor would pay and therefore measure the company’s cost of granting options.³

However, these standard models are not appropriate for determining the value of options to the undiversified, risk-averse employees who can neither freely sell or trade the options nor hedge their risk through short selling or other methods. Employees should have a clear preference for compensation in cash or in a diversified portfolio of stocks, rather than receiving an equal value of nontradable and undiversified stock options. The idea that options cost companies more than they are worth to employee-recipients is not surprising: it stems from the basic concept that individuals demand compensating differentials for bearing risk. Indeed, if employees valued options at their cost to the company, then employees should be paid entirely in options rather than cash as long as options offer *any* positive incentive benefits.

Press accounts sometimes claim that executives can effectively hedge or unwind the risk of their options through financial transactions (involving derivatives) with investment banks. But we know of no evidence showing that this practice is widespread, and our many conversations with knowledgeable practitioners suggest that such hedging is quite rare. Although executives sometimes hedge the risk of their unrestricted stock holdings, it is more difficult to hedge option risk because executives are legally precluded from shorting their company stock, trading their options or “restricted stock” (stock that cannot be freely sold by the executives) or pledging these securities as collateral. Moreover, Schizer (2000) documents that significant tax disadvantages would result from hedging restricted stock or options. Finally, even if some top executives have hedged some of their option holdings, such schemes are not available to lower-level managers and employees who receive 90 percent of stock options granted.

In Hall and Murphy (2000, 2002), we compare the company’s cost of granting employee stock options to the value of the same stock options to employees using

³ Binomial models can more accurately measure the company cost of options than the Black-Scholes formula because the binominal approach can more flexibly take into account expected forfeitures and early exercise, both of which reduce the expected cost of options.

a certainty-equivalence approach.⁴ For reasonable assumptions about risk aversion and diversification, we find that employees value options that have just been granted with an exercise price equal to the market price at only about half of their cost to the firm. This value-to-cost ratio is substantially smaller if the options have an exercise price that is above the existing market price, or if the exercise price increases over time, or if the options have a long vesting period.

Thus, in determining whether stock options are an efficient method of providing compensation, the question hinges on whether the attraction, retention and motivational benefits of options are sufficient to justify the large compensating differential implied by the wedge between the cost and value of options.

Attraction?

A potential benefit of providing compensation in the form of options is that the company can attract employees without spending cash. However, this benefit must be weighed against the compensating differential demanded by option-holding employees. Companies paying options in lieu of cash are effectively borrowing from employees, receiving employment services today in return for highly variable (and often nonexistent) payouts in the future. But risk-averse undiversified employees are unlikely to be efficient sources of capital, especially compared to banks, private equity funds, venture capitalists and other investors who specialize in managing risk and providing capital.

The empirical evidence that companies grant options to conserve cash is mixed. Core and Guay (2001) find greater use of employee options in firms facing financial constraints. However, in a study of new economy firms, Ittner, Lambert and Larcker (2003) find that companies with *greater* cash flows use options more extensively. Indeed, option-intensive companies like Microsoft, Intel and Cisco are well known for paying cash compensation above competitive levels, and Microsoft and others routinely use their excess cash to repurchase shares to reduce the dilution caused by large option grants.

The euphoria surrounding the bull market of the late 1990s led many employees to clamor for stock options, which might suggest that companies could attract workers by offering options while reducing other components of compensation. But “clamoring” does not obviously translate into willingness to trade off less current compensation for options; indeed, most broad-based option plans are added on top of existing competitive pay packages. As shown in Table 1, the average employee in a new economy firm received options costing shareholders almost \$27,000 in 2000. It is not surprising that employees clamor for such options when they are largely add-ons. But since employees are unwilling to pay close to the full cost of their options, broad-based options are an inefficient substitute for cash compensation and therefore an inefficient way to attract employees.

Paying options in lieu of cash compensation will affect the type of employees the company can attract. For example, highly motivated and entrepreneurial

⁴ See also Lambert, Larcker and Verrecchia (1991). Meulbroeck (2001) uses a non-utility-based approach to distinguish between cost and value and obtains similar results.

employees who believe they can increase company stock prices will be attracted to companies offering relatively more option-based compensation. Whether this benefit justifies the compensating differential “charged” by employees for accepting risky compensation depends on the strength and value of this sorting and on the availability of other (less costly) measures of managerial characteristics. In any case, this rationale for stock options as an attraction device is limited to top managers and perhaps to some key engineering or technical employees who can directly affect company stock prices, and these individuals account for a small fraction of the option recipients.

For lower-level positions in the corporate hierarchy, paying options in lieu of cash compensation will attract employees who are relatively less risk-averse. However, if attracting less risk-averse employees is an important objective, offering bonus plans tied to performance measures in the employee’s “line of sight” can provide both sorting and incentives, while payments to lower-level workers based on stock prices will provide sorting but not incentives.

In summary, it is difficult to justify using stock options to achieve objectives related to attraction. At best, paying in stock options may help the company attract entrepreneurial top managers or some key engineering or technical employees, but it is difficult to tell a compelling story about the benefits of using stock options to attract lower-level employees.

Retention?

Employee stock options provide retention incentives through restrictions on vesting that lapse with the passage of time, together with provisions that unvested options are forfeited when an employee leaves. The retention incentives created by employee options are highest when the stock price is already well above the exercise price of the options and when the employee must remain in the job before being able to exercise the option. Retention incentives are lowest when options are “underwater” and essentially valueless, especially when alternative employers are willing to make a new grant of more-valuable options.

Options clearly provide retention incentives, but do they do so in the most efficient manner? Retention incentives can be created by any compensation mechanism that makes it worthwhile for employees to stay with their current employer rather than to accept an outside offer. For example, retention incentives can be provided by deferred compensation or pensions that depend on remaining with the firm, or by paying employees less than their marginal product early in their career but more later (Lazear, 1979). Alternatively, firms can offer explicit “retention bonuses” to critical employees staying a specified period of time; indeed, such retention bonuses are quite common in situations where a firm is in financial distress. Since risk-averse employees value cash more than options, it seems plausible that explicit cash retention bonuses are a more cost-effective method than options of inducing continued employment.

In addition, it is not obvious to us that retention incentives should optimally vary with company stock prices. Suppose, for example, that all firms in an industry offer identical compensation packages consisting of a base salary and an option

grant with an exercise price equal to the grant-date market price. In a bull market, stock prices rise above the exercise price of the options, and all workers will find it advantageous to stay with their current employers. But in a bear market, stock prices fall below the exercise prices, and workers will rationally leave their current firm to join a competitor offering a fresh compensation package. This latter scenario is currently plaguing much of corporate America, where option-based retention incentives have evaporated along with shareholder returns.

Motivation?

The potential motivational benefits of tying top-executive pay to the performance of company stock are clear enough. But given that 90 percent of stock options are granted below the top-executive level, the relevant question is this: Are options an efficient way of providing incentives for lower-level managers and employees?

Conceptually, it seems implausible that stock options provide meaningful incentives to lower-level employees. Although employees may hold a substantial fraction of their wealth in a firm (both through firm-specific human capital and through stock in 401(k) plans), they can be granted at most a trivial fraction of the outstanding shares. Thus, a free-rider problem exists: even if employees can increase the value of the firm, their share of that gain through their option holdings is very small. Combining this enormous free-rider problem with the risk imposed on employees through stock-based pay, it seems obvious that cash-based incentive plans based on objective or subjective performance measures can provide stronger and more efficient pay-performance incentives. Oyer and Schaefer (2002) provide a detailed analysis of this assertion.

Tying employee pay to company stock-price performance may provide indirect incentive benefits to the company. For example, stock-based pay may help communicate the corporate objective of maximizing shareholder wealth, increase employee morale and encourage workers to engage in mutual monitoring. Although we are unaware of compelling empirical research that supports these claims, we note that these benefits (if they exist) have surely backfired in the current bear market, as mutual monitoring incentives and the morale of option holders have plummeted along with stock prices.

Are Traditional Options Efficient For Top Executives?

Although options are clearly an inefficient way of attracting, retaining and motivating lower-level employees, the case for options for top executives is more compelling. For example, options may help attract entrepreneurial managers and also provide top managers with incentives to take actions that increase the stock price. But even for top managers, there are good reasons to question whether the “traditional stock option”—that is, a ten-year option with relatively short vesting and an exercise price equal to the grant-date market price—represents the most efficient way to provide stock-based incentives.

Many economists embrace the idea that option exercise prices should be

“indexed” to the market (for example, Rappaport, 1999). Since executives holding indexed options are rewarded only to the extent that their performance exceeds the market, these plans utilize a less-noisy performance measure, protect executives from market shocks and also protect shareholders from rewarding poorly performing executives in bull markets. In spite of these advantages, indexed options are virtually nonexistent.

We believe the nonexistence of indexed options reflects two factors. First, as discussed further in the next section, grants of indexed options must be expensed in accounting statements (resulting in smaller reported corporate income), while traditional options are not expensed. Second, traditional options are much more likely than indexed options to end up with a stock price that exceeds the exercise price. For example, the probability that a traditional option is in the money after ten years is approximately 80 percent.⁵ In contrast, the probability that an indexed option is in the money after ten years is significantly less than 50 percent, because stock returns are skewed to the right (since the minimum return is minus 100 percent, but the maximum return is unbounded), and therefore less than half of the firms in an index will have returns that exceed the average. Thus, indexing reduces the company’s cost of granting an option, but it reduces the executive’s value even more because risk-averse executives attach very low values to options likely to expire worthless. Therefore, to deliver the same value to the executive, it costs the company more to grant indexed options rather than traditional options.

Our argument runs counter to the conventional wisdom, which often asserts that options where the exercise price is indexed to market must be a Pareto improvement to traditional options both for firms and for risk-averse employees. However, in an analysis of indexed options based on our Hall and Murphy (2002) methodology, we find that indexed options dominate traditional options only if the indexed options are granted with exercise prices that are well below market value at time of grant, to offset the major disadvantage of reduced payout probabilities.

More generally, options that are likely to expire worthless provide weak incentives for risk-averse executives, since the incentive-value of options is related to how the executive’s value changes with incremental increases in the stock price. This is why “premium options”—which have an exercise price above the current stock price and are advocated by many shareholder activists who desire to create tougher performance standards for top executives—are poor incentive devices. Increasing the exercise price above the grant-date market price saves the company some money, but it also reduces the marginal value of a change in the stock price to the executive since premium options are more likely to expire underwater. Indeed, with premium options, even significant increases in the stock price may bring little value to the executive, resulting in weaker incentives per dollar spent on compensation by the firm.

In Hall and Murphy (2002), we find that incentives per dollar spent on compensation to risk-averse executives are maximized by granting options with

⁵ This estimate is based on the capital-asset pricing model assuming no dividends, expected appreciation of 12.5 percent and volatility of 30 percent.

exercise prices that are *below*, not above, the market price at the grant date.⁶ This ensures that the executive faces an immediate marginal change in wealth for both rises and falls in the stock price. In one situation—namely, when the company offers additional stock-based compensation and simultaneously reduces cash compensation to leave the initial expected utility of the executive unchanged—we find that incentives are maximized through grants of nontradable restricted stock (that is, stock that cannot be freely sold by the executive) rather than options.

Restricted stock has several advantages over stock options in providing incentives to top executives. Requiring top executives to hold company stock provides relatively stable incentives regardless of the stock price, whereas with stock options the incentive value of options depends on the market price of the stock relative to the exercise price. In particular, options where the market price is well above the exercise price provide incentives similar to those provided by stock holdings, but options lose incentive value (and retention value) once the stock price falls sufficiently below the exercise price that the executive perceives little chance that the options will ever provide a significant payoff. Option-granting companies with “underwater options” are under constant pressure to lower the exercise price on outstanding options or to grant additional options effectively to replace the underwater ones (for example, Hall and Knox, 2002). The difficult pressures resulting from the underwater-options problem are avoided by granting restricted stock.

Granting restricted stock rather than options also affects managerial incentives to engage in risky investments. An executive holding out-of-the-money options, where the exercise price is above the current market price, will have incentives to undertake riskier investments than will an executive holding in-the-money options; in contrast, investment incentives are roughly independent of stock prices for executives holding stock (unless the price is sufficiently low that the risk from bad outcomes is shifted to debt holders).⁷ In addition, executives holding restricted stock rather than options have better incentives to pursue an appropriate dividend policy. Since options reward only stock-price appreciation and not total shareholder returns (which include dividends), executives holding options have strong incentives to avoid dividends and to favor share repurchases—and several studies have found evidence that managers have responded to this incentive (for example, Lambert, Lanen and Larcker, 1989; Lewellen, Loderer and Martin, 1987; Jolls, 2002; Fenn and Liang, 2001).⁸

Finally, we note that no performance measure, including the stock price,

⁶ The degree of risk aversion matters here. For risk-neutral executives, for example, incentives per dollar of compensation are maximized by granting an infinite number of options at an infinite exercise price (Hall and Murphy, 2000).

⁷ Hirshleifer and Suh (1992) argue that option plans (or other plans with “convex” payouts) help mitigate the effects of executive risk aversion by giving managers incentives to adopt rather than avoid risky projects. However, it is not obvious why the optimal “mitigation” should depend on whether options are in- or out-of-the-money.

⁸ A small number of companies offer “dividend protection” for employee stock options, usually accomplished by paying the employee accumulated dividends (plus interest) upon exercise of the underlying options. Although this practice is rare, we expect it will increase if personal income taxes on dividends are reduced.

represents a perfect measure of firm value. The advantages of tying executive compensation to the stock price rather than to accounting returns are premised on the assumption that stock prices incorporate most or all publicly available information, and managers cannot take advantage of “too much” private information. In the recent accounting scandals, some executives allegedly boosted stock prices by reporting fraudulently high earnings. Financial market inefficiencies—in this case, private information that accounting data were misleading—not only reduce the effectiveness of stock-based incentives, but also provide incentives to top managers to exploit these inefficiencies, gaming stock-based pay in the same way that they sometimes game accounting-based bonuses. This outcome is somewhat ironic since stock-based pay was, in part, put forward as a solution to the gaming of pay plans based on accounting measures—providing evidence once again that incentives can sometimes have the problem of motivating too well, rather than too little. Although the gaming of stock-based pay became more prevalent in the waning years of the bull market of the 1990s as executives struggled to meet unrealistic shareholder expectations,⁹ we believe that the discipline of investors makes stock-based pay generally less vulnerable to gaming than pay based on highly manipulable accounting measures.

So Why Do Companies *Really* Grant Stock Options?

Properly designed stock-based compensation plans are (by definition) an efficient way of tying pay to corporate performance. However, our analysis reveals problems in the design of top-executive options and suggests that options are a highly inefficient way of attracting, retaining and motivating lower-level employees. If these conclusions are right, then why, *really*, do companies grant options, especially to lower-level employees? Moreover, what explains the trends in option grants over the last decade?

In this section, we discuss several possible explanations for the recent escalation in the granting of stock options, including changes in corporate governance, reporting requirements, taxes, the bull market and managerial rent seeking. These explanations are not mutually exclusive, and all may have contributed to increased grants for top executives (although we are most skeptical of the rent-seeking explanation). However, none of these factors provide a satisfactory explanation for the escalation in broad-based grants to lower-level employees. Thus, we offer an alternative hypothesis that we believe explains why companies grant so many options to so many people: boards and managers are convinced that stock options are cheap to grant because there is no accounting cost and no cash outlay, and granting decisions are based on this inaccurate “perceived cost” rather than the much-higher economic cost of options.

⁹ Jensen and Fuller (2002) argue that overpriced equity during the bull market had large “agency costs,” motivating managers to make value-destroying (and sometimes unethical and/or illegal) decisions to meet the unreasonable expectations of investors.

A New Emphasis on Shareholder Value

If option grants were largely limited to top executives, we believe the escalation could be explained in part by a renewed emphasis on shareholder value reflected by dramatic changes in corporate governance (Holmstrom and Kaplan, 2001). By the early 1990s, shareholder groups like the United Shareholders Association, the Council of Institutional Investors and several large state pension funds had become critical of existing executive pay practices that were largely independent of company performance. These concerns were amplified by academic research (especially Jensen and Murphy, 1990a, b) showing that chief executive officers of large companies received small rewards for superior performance and even smaller penalties for failures. Companies responded to these pressures by granting more stock options to their executives. However, in part because risk-averse executives place low values on options, these grants largely came without reductions in any other form of pay, leading to a significant increase in the overall level of executive compensation.

Contemporaneous changes in disclosure and tax rules reinforced stronger linkages between stock performance and executive pay. In late 1992, the Securities and Exchange Commission (SEC) issued new disclosure rules that required company compensation committees to describe company pay practices and justify in detail how they determined the pay of the chief executive officer, and they also required companies to prepare a chart showing the company's five-year shareholder returns compared to the market and an industry peer group. Although the new rules made option grants significantly more transparent—which would lead companies to grant fewer options to the extent that options are used to “hide” compensation—we believe that the rules on net encouraged increased grants. The shareholder-returns chart endorsed the idea that the company's primary objective is to create shareholder value, and pay for a top executive is more easily justified if it is demonstrably tied to company performance. Moreover, in the primary compensation table that summarizes payments to the top five executives, only the *number* rather than the *value* of options is reported. In contrast, the value of restricted stock grants is reported, and therefore restricted stock is naturally added to other pay components to derive “total compensation.”

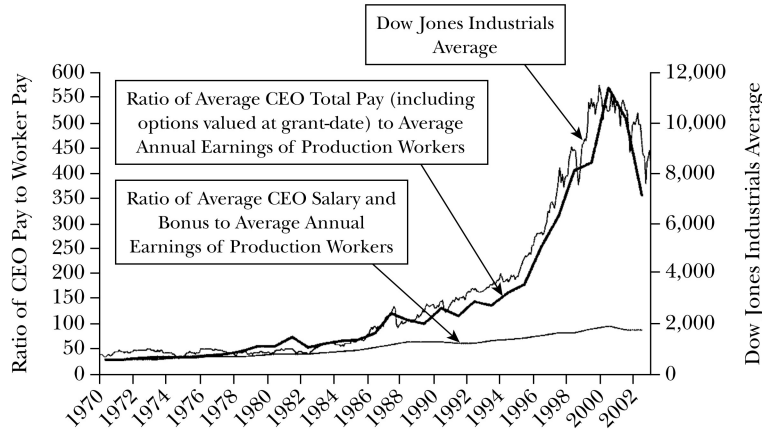
In 1994, the new tax rule disallowing deductions for “non-performance-based” compensation in excess of \$1 million became effective. Research testing whether the new rule can explain the increase in option pay has been inconclusive (for example, Rose and Wolfram, 2002; Hall and Liebman, 2000; Perry and Zenner, 2001). We are skeptical of this explanation because the explosion in grants of stock options was already underway in the 1980s (Hall and Liebman, 1998; Murphy, 1999) and because the law only applies to the top five executives, who in turn account for only about 10 percent of all option grants. However, the new rule constituted an implicit government “blessing” of stock options as appropriate performance-based pay, and this implicit endorsement may have further fueled the escalation in options.

The Bull Market

The trend in option grants over the past three decades has closely tracked general stock market indices. Figure 2 documents the correlation between the Dow

Figure 2

Dow Jones Industrial Average and the Ratio of Average CEO Pay to Average Pay for Production Workers, 1970–2002



Notes: Dow Jones Industrials based on monthly closing averages. CEO sample is based on all CEOs included in the S&P 500, using data from Forbes and ExecuComp. CEO total pay includes cash pay, restricted stock, payouts from long-term pay programs and the value of stock options granted using ExecuComp's modified Black-Scholes approach. (Total pay prior to 1978 excludes option grants, while total pay between 1978 and 1991 is computed using the amounts realized from exercising stock options during the year, rather than grant-date values.) Worker pay represents 52 times the average weekly hours of production workers multiplied by the average hourly earnings, based on data from the Current Employment Statistics, Bureau of Labor Statistics.

Jones Industrial Average and the ratio of the pay of the chief executive officer to the average worker between 1970 and 2002. In 1970, the average CEO of an S&P 500 firm made about 30 times the pay of the average production worker. By 2002, the average S&P 500 CEO received cash compensation nearly 90 times greater than the average earnings for production workers, and total compensation (defined as cash compensation plus the grant-date value of stock options) of over 360 times the earnings for production workers (down from a peak of 570 in 2000). Most importantly for present purposes, CEO *cash* compensation is weakly correlated with the Dow Jones Average, but CEO *total* compensation is strongly correlated with the stock market.¹⁰ There are several reasons to expect that the correlation is more than coincidental.

First, as stock prices increased sharply during the 1990s, many executives and employees holding options and stock became wealthy. As stories of the riches gained by option holders spread through the media and word of mouth, an option frenzy grew.

¹⁰ The total compensation data in Figure 2 prior to 1992 are based on amounts realized from exercising options, but options were relatively unimportant during this period, and average amounts realized during the year were closely correlated with average amounts granted. From 1992 forward, the total compensation data are based on grant-date option values using Black-Scholes values, and there is no mechanical reason why options would increase with the market.

Second, options may indeed have worked: corporate boards and top managers began to associate option grants with successful company performance, especially during the high-tech and Internet boom of the late 1990s. Indeed, the increase in options coupled with the renewed focus on shareholder value creation may help explain the overall growth in the stock market since the early 1990s. Empirical evidence directly linking option grants to subsequent company performance has been largely inconclusive, however, reflecting the inherent difficulty of conducting convincing tests of the issue. For example, if financial markets are efficient, we would not expect high-option companies to realize systematically higher shareholder returns than those realized by low-option companies. In addition, even ignoring market efficiency, increasing option grants would lead to improved performance only if “too few” options were awarded initially. Designing and testing the right experiment on how option grants affect firm performance remains the most important research opportunity in the area.

Third, companies are often reluctant to decrease the number of options granted after the stock price increases; indeed, many companies have explicit policies where the grant size (measured in number of shares rather than dollars) remains constant over time. Since the value of an option increases with the price of the underlying stock, granting a constant number of options will lead to a higher value being granted. Even companies without “fixed share” policies will be affected, since the value of fixed-share grants are included in benchmarking surveys used by compensation-consulting firms. The net result is a ratcheting of the value of option grants during an escalating stock market, and a fall in the value of grants in a declining market.

Managerial Rent Seeking

The escalation in executive pay, largely driven by options, may reflect inefficient transfers of wealth from shareholders to greedy executives. This view has been espoused by Bebchuk, Fried and Walker (2002; see also Bebchuk and Fried in this issue), who argue that the escalation in executive stock options reflects the actions of incumbent executives who can raise their own pay by exercising influence over hand-picked directors. Rent-seeking executives increase their pay through options rather than cash in an attempt to camouflage pay to mitigate external scrutiny and criticism. Bebchuk, Fried and Walker argue that rent extraction can explain both trends in pay levels and several features of option plans, including why exercise prices are set at grant-date market prices and are not indexed to general market movements, why options are often reset following market declines and why firms allow executives to exercise early and diversify (or otherwise hedge the risk of their option and stock holdings).

We are sympathetic to the view that executive pay decisions are typically not made by truly independent boards in truly arms-length negotiations. However, we do not believe that rent extraction provides a compelling explanation for the escalation in stock options (and the consequent increase in pay of CEOs), for several reasons.

First, by virtually all accounts, corporate boards have become *more* rather than

less independent over the past decade. Board sizes have declined, and the fraction of outside relative to inside board members has increased (Holmstrom and Kaplan, 2001). Most companies now have compensation committees comprised of two or more independent outside directors; in earlier years, the CEO and other insiders often sat on the compensation committee (if the company even had a separate compensation committee). Although corporate governance can surely improve further, changes over the last decade have strengthened board governance and seem inconsistent with an increased ability of executives to extract rents from captive boards.

Second, the managerial rent-extraction hypothesis applies to incumbent executives, and not to executives hired from outside the firm who are more likely to be hired in arms-length transactions. But executives changing companies during the 1990s received large pay increases, indicating that alleged “rents” were transferable—which suggests they are not rents at all (Fee and Hadlock, 2003; Murphy, 2002). Indeed, the existence of outside succession is largely inconsistent with the rent-extraction view, because systematic rents above competitive pay levels will make executives less likely to leave voluntarily and make attracting executives from other firms more expensive. But, as documented by Murphy and Zábojník (2003), companies in the 1990s (when rent-extraction was supposedly high) were much more likely to hire chief executive officers from outside the company than in the 1980s or 1970s.

Third, the managerial-power hypothesis holds that rent-seeking executives will choose options over cash because options are less transparent to shareholders, politicians, the media or others who would criticize high cash payments. However, the SEC disclosure rules introduced in 1992 were focused in large part on providing better details on stock-option compensation, thus making it harder for top executives to camouflage compensation by granting options. Although we agree that the cost of options is less transparent to shareholders than cash pay, the fact that option compensation became much more transparent during the 1990s—and that grants continued unabated following better disclosure—contradicts the claim that rent seeking combined with camouflage explains the option explosion.

The managerial rent-extraction hypothesis is, at best, an explanation for the very top executives. As we have emphasized in this article, the escalation in stock options has not been a CEO-specific phenomena: in 2002, for example, more than 90 percent of options granted in the S&P 500 went to executives and employees below the top five. A compelling explanation for the escalation in stock option grants must be consistent with the increased use of options throughout the company.

The Perceived-Cost Hypothesis

An alternative explanation for the growth of option-granting in the 1990s is that decisions over options are made based on the “perceived cost” of options rather than on their economic cost (Murphy, 2002). When a company grants an option to an employee, it bears an economic cost equal to what an outside investor would pay for the option. But it bears no accounting charge and incurs no outlay

of cash. Moreover, when the option is exercised, the company (usually) issues a new share to the executive and receives a tax deduction for the spread between the stock price and the exercise price. These factors make the “perceived cost” of an option much lower than the economic cost.

The result of making decisions based on perceived rather than economic costs is that too many options will be granted to too many people, and options with favorable accounting treatment will be preferred to (perhaps better) incentive plans with less favorable accounting. From an economic-cost standpoint, options may be an inefficient way to convey compensation and to attract, retain and motivate employees. But from a perceived-cost standpoint, options may seem an efficient way to achieve these objectives.

In many respects, the perceived-cost view of options is analogous to the motivation for the Economic Value Added (EVA) approach (Stern, Stewart and Chew, 1995). EVA is defined as operating profit after a charge for the capital required to earn that profit. The key idea behind EVA is that managers perceive the cost of equity capital to be small, and they make decisions based on this erroneous perceived cost rather than on the much higher economic cost. Basing pay on EVA forces managers to recognize the cost of equity capital, leading to better decisions and a more efficient use of capital.

The perception that options are nearly free to grant is readily acknowledged by practitioners and compensation consultants, but is usually dismissed by economists because it implies systematic suboptimal decision making and a fixation on accounting numbers that defies economic logic. But managers often respond to accounting concerns in ways that seem irrational to economists. For example, when the Financial Accounting Standards Board imposed a current accounting charge for anticipated postretirement health-care liabilities beginning in 1993, managers predicted that stock prices would fall with reported income. Stock prices did not fall, because markets are reasonably efficient and the economic liability was already incorporated in stock prices (Amir, 1993; Espahbodi, Strock and Tehranian, 1991), but companies nonetheless made dramatic cutbacks in the medical benefits for retirees (Mittelstaedt, Nichols and Regier, 1995). The new accounting rule apparently increased the perceived cost of these benefits, putting them more in line with their actual economic cost, and as a result, the company reduced the level of the benefits.

The disappearance of option repricing also illustrates how companies respond to accounting rules that have no effect on company cash flows. This common, but controversial, practice virtually disappeared after December 1998, when the FASB imposed an accounting charge for repriced options (Murphy, 2003; Carter and Lynch, 2003). Many companies with declining stock prices circumvented the accounting charge on repriced options by canceling existing options and reissuing an equal number of options after waiting six months or more (Zheng, 2003). But this replacement is not neutral. It imposes substantial risk on risk-averse employees since the exercise price is not known for six months and can conceivably be *above* the original exercise price. In addition, canceling and reissuing stock options in this way provides perverse incentives to keep the stock price down for six months so that

the new options will have a low exercise price. All of this scrambling to avoid an accounting charge!

From the perspective of many boards and top executives who perceive options to be nearly costless, the relevant “cost” of options in practice is the trouble associated with obtaining shareholder approval for additional grants coupled with the cost of additional dilution. Advisory firms often base their shareholder voting recommendations primarily on the option “overhang” (that is, the number of options granted plus options remaining to be granted as a percentage of total shares outstanding), and not on the economic cost of the proposed plan. In addition, the number of options granted is included in fully diluted shares outstanding and therefore increased grants will decrease fully diluted earnings per share. These perceived costs vary with the number of options granted and not with the dollar value of the grants.

We believe that the perceived-cost view of options explains why options are granted in such large quantities to large numbers of workers, and it also explains why grant-date values rose dramatically and subsequently declined with the stock market (as shown earlier in Figures 1 and 2). We speculate that as grants for top executives increased (for reasons offered above), companies faced growing pressure to push grants down throughout the organization (for example, Flanigan, 1996). Employees clamored for broad-based grants, as long as other components of their compensation were not lowered. Boards readily succumbed, since (prior to changes in exchange listing requirements in mid-2003) shareholder approval was required for plans concentrated among top executives, but was *not* required for broad-based plans. In addition, several bills that encouraged broad-based stock option plans were introduced in Congress.¹¹ As a result of these pressures, the number of options granted (expressed as a fraction of outstanding shares) grew modestly (see Panel A of Table 1). But the economic cost of these grants followed general stock-market movements, growing dramatically through 2000.

The Case for Expensing Stock Options

The recent accounting scandals have renewed a heated public debate on the accounting treatment of options. In March 2003, the Financial Accounting Standards Board announced that it would consider mandating an accounting expense for options, hoping for a final rule by early 2004. Proposals that stock options must be recorded as an expense—in the jargon, that options be “expensed”—have been endorsed by FASB’s international counterpart (the International Accounting Stan-

¹¹ For example, H.R. 5242, “To amend the Internal Revenue Code of 1986 to encourage the granting of employee stock options” (introduced July 2002; currently in committee); S. 2877, “To amend the Internal Revenue Code of 1986 to ensure that stock options are granted to rank-and-file employees as well as officers and directors” (introduced August 2002; in committee); and H.R. 2788, “To amend the Internal Revenue Code of 1986 to promote the grant of incentive stock options to non-highly compensated employees” (introduced October 1997; in committee).

dard Board) and also by Alan Greenspan, Warren Buffett and a growing number of business journalists and academics. Opposition has come from the Bush administration, the Business Roundtable, TechNet (the nation's largest high-tech trade association), the National Association of Manufacturers, the U.S. Chamber of Commerce and the International Employee Stock Options Coalition (an industry group created explicitly to oppose an accounting charge). Congress has been divided on the issue.¹²

Imposing an accounting charge on stock options would not affect current or future cash flows, but parties on both sides of the debate agree that such a change would result in granting fewer options, especially to rank-and-file workers. One common argument for why fewer options would be granted is that companies fear a backlash in the stock market if investors understood the true cost of the options. But this explanation—that investors do not currently understand the cost of options—has been studied and rejected by most academic research (for example, Aboody, 1996; Aboody, Barth and Kasznik, 2001). Current accounting rules require companies to disclose the value of options granted in a detailed footnote to company accounting statements. Several studies have shown that the costs of options are indeed reflected in stock prices, which suggests that increasing disclosure by making it more detailed and more frequent is unlikely to affect practice.

However, the fact that financial markets see through the “veil of accounting” does not imply that accounting considerations are irrelevant, since accounting rules affect—and sometimes distort—managerial decisions. As we have argued, part of the reason that managers and boards have been so willing to grant options is that they are making decisions based on the artificially low perceived cost of options rather than on their economic cost. This insight provides a strong case for a requirement that options be expensed. The overall effect of bringing the perceived costs of options more in line with economic costs will be that fewer options will be granted to fewer people. Stock options are likely to be reduced and concentrated among those executives and key technical employees who can plausibly affect company stock prices.

In addition, we predict that expensing will lead to compensation decisions that are better designed to attract, retain and motivate a productive workforce. For example, current accounting rules create a bias in favor of stock options and against other types of stock-based compensation plans, including restricted stock, options where the exercise price is set below the current market value, options where the exercise price is indexed to industry or market performance and performance-based options that vest only if key performance thresholds are

¹² For example, in 2003, Senators McCain and Levin reintroduced a bill that would disallow corporations from deducting option costs from taxable profits unless companies also expensed their options on their income statements. However, 15 other senators (including Senators Kennedy and Lieberman) have opposed mandatory option expensing, arguing that it would inflict a “fatal blow” on broad-based option plans. In March 2003, the “Broad-Based Stock Option Transparency Act” was introduced in the House; this bill would forbid FASB from imposing an accounting charge on options for at least three years.

achieved. Also, current rules are biased against cash incentive plans that can be tied in creative ways to increases in shareholder wealth. As long as stock options appear to be “free” relative to sensible alternatives that trigger accounting charges, these alternatives will rarely receive appropriate consideration.

The root of the trouble with options, we believe, is that decisions to grant such options are based on a perceived cost of options that is substantially lower than the economic cost. Mitigating perceived-cost problems involves both educating managers and boards on the true economic costs of stock options and eliminating the asymmetries between the accounting and tax treatment of stock options and other forms of compensation. Proposals to impose an accounting charge for option grants will close the gap between perceived and economic costs and are a step in the right direction.

■ We are grateful for research support from the Division of Research at Harvard Business School (Hall) and USC’s Marshall School (Murphy). We thank Harry DeAngelo, Linda DeAngelo, Bradford De Long, Michael Waldman, Paul Oyer, Timothy Taylor, Jan Zábajník and Aaron Zimmerman for helpful comments.

References

- Aboody, David.** 1996. “Market Valuation of Employee Stock Options.” *Journal of Accounting and Economics*. 22:1–3, pp. 357–91.
- Aboody, David, Mary E. Barth and Ron Kasznik.** 2001. “SFAS 123 Stock-Based Compensation Expense and Equity Market Values.” Working paper.
- Amir, Eli.** 1993. “The Market Valuation of Accounting Information: The Case of Postretirement Benefits other than Pensions.” *Accounting Review*. 68:4, pp. 703–24.
- Bebchuk, Lucian, Jesse Fried and David Walker.** 2002. “Managerial Power and Rent Extraction in the Design of Executive Compensation.” *University of Chicago Law Review*. 69:3, pp. 751–846.
- Black, Fisher and Myron Scholes.** 1973. “The Pricing of Options and Corporate Liabilities.” *Journal of Political Economy*. 81:3, pp. 637–59.
- Carter, Mary Ellen and Luann J. Lynch.** 2003. “The Consequences of the FASB’s 1998 Proposal on Accounting for Stock Option Repricing.” *Journal of Accounting and Economics*. Forthcoming.
- Cassidy, John.** 2002. “The Greed Cycle.” *New Yorker*. September 23, pp. 64–77.
- Core, John and Wayne Guay.** 2001. “Stock Option Plans for Non-Executive Employees.” *Journal of Financial Economics*. 61:2, pp. 253–87.
- Espahbodi, Hassan, Elizabeth Strock and Hassan Tehranian.** 1991. “Impact on Equity Prices of Pronouncements Related to Nonpension Postretirement Benefits.” *Journal of Accounting and Economics*. 14:4, pp. 323–46.
- Fee, Edward and Charles Hadlock.** 2003. “Raids, Rewards and Reputations in the Market for CEO Talent.” *Review of Financial Studies*. Forthcoming.
- Fenn, George and Nellie Liang.** 2001. “Corporate Payout Policy and Managerial Stock Incentives.” *Journal of Financial Economics*. 60:1, pp. 45–72.
- Flanigan, James.** 1996. “It’s Time For All Employees To Get Stock Options.” *Los Angeles Times*. April 21, p. 1.
- Hall, Brian J. and Thomas A. Knox.** 2002. “Managing Option Fragility.” NBER Working Paper No. 9059, July.
- Hall, Brian J. and Jeffrey B. Liebman.** 1998. “Are CEOs Really Paid Like Bureaucrats?” *Quarterly Journal of Economics*. August, 113, pp. 653–91.
- Hall, Brian J. and Jeffrey B. Liebman.** 2000.

"The Taxation of Executive Compensation," in *Tax Policy and the Economy, Volume 14*. James Poterba, ed. Cambridge, Mass.: MIT Press, pp. 1–44.

Hall, Brian J. and Kevin J. Murphy. 2000. "Optimal Exercise Prices for Executive Stock Options." *American Economic Review*. May, 90:2, pp. 209–14.

Hall, Brian J. and Kevin J. Murphy. 2002. "Stock Options for Undiversified Executives." *Journal of Accounting and Economics*. 33:1, pp. 3–42.

Hirshleifer, David and Y. Suh. 1992. "Risk, Managerial Effort, and Project Choice." *Journal of Financial Intermediation*. 2:3, pp. 308–45.

Holmstrom, Bengt and Steven Kaplan. 2001. "Corporate Governance and Takeovers in the U.S.: Making Sense of the 1980s and 1990s." *Journal of Economic Perspectives*. Spring, 15:2, pp. 121–44.

Ittner, Christopher D., Richard A. Lambert and David F. Larcker. 2003. "The Structure and Performance Consequences of Equity Grants to Employees of New Economy Firms." *Journal of Accounting and Economics*. 34:1–3, pp. 89–127.

Jensen, Michael C. and Joseph Fuller. 2002. "Just Say No to Wall Street: Putting a Stop to the Earnings Game." *Journal of Applied Corporate Finance*. Winter, 14, pp. 41–46.

Jensen, Michael C. and Kevin J. Murphy. 1990a. "Performance Pay and Top-Management Incentives." *Journal of Political Economy*. 98:2, pp. 225–64.

Jensen, Michael C. and Kevin J. Murphy. 1990b. "It's Not How Much You Pay, but How." *Harvard Business Review*. May/June, 3, pp. 138–53.

Jolls, Christine. 2002. "Stock Repurchases and Incentive Compensation." Working paper.

Lambert, Richard A., William Lanen and David F. Larcker. 1989. "Executive Stock Option Plans and Corporate Dividend Policy." *Journal of Financial and Quantitative Analysis*. 24:4, pp. 409–25.

Lambert, Richard A., David F. Larcker and Robert E. Verrecchia. 1991. "Portfolio Considerations in Valuing Executive Compensation." *Journal of Accounting Research*. 29:1, pp. 129–49.

Lazear, Edward P. 1979. "Why is There Mandatory Retirement?" *Journal of Political Economy*. December, 87, pp. 1261–264.

Lewellen, Wilbur, Claudio Loderer and Kenneth Martin. 1987. "Executive Compensation and Executive Incentive Problems: An Empirical

Analysis." *Journal of Accounting and Economics*. 9:3, pp. 287–310.

Madrick, Jeff. 2003. "A Theory on Corporate Greed." *New York Times*. February 20, C2.

Meulbroeck, Lisa K. 2001. "The Efficiency of Equity-Linked Compensation: Understanding the Full Cost of Awarding Executive Stock Options." *Financial Management*. 30:2, pp. 5–44.

Mittelstaedt, Fred, William Nichols and Philip Regier. 1995. "SFAS No. 106 and Benefit Reductions in Employer-Sponsored Retiree Health Care Plans." *Accounting Review*. 70:4, pp. 535–56.

Murphy, Kevin J. 1999. "Executive Compensation," in *Handbook of Labor Economics, Volume IIIb*. Orley Ashenfelter and David Card, eds. Amsterdam: North Holland, pp. 2485–563.

Murphy, Kevin J. 2002. "Explaining Executive Compensation: Managerial Power versus the Perceived Cost of Stock Options." *University of Chicago Law Review*. Summer, 69:3, pp. 847–69.

Murphy, Kevin J. 2003. "Stock-Based Pay in New Economy Firms." *Journal of Accounting and Economics*. 34:1–3, pp. 129–47.

Murphy, Kevin J. and Jan Zábajník. 2003. "Managerial Capital and the Market for CEOs." Unpublished manuscript.

Oyer, Paul and Scott Schaefer. 2002. "Why Do Some Firms Give Stock Options to All Employees?: An Empirical Examination of Alternative Theories." Working paper.

Perry, Tod and Marc Zenner. 2001. "Pay for Performance? Government Regulation and the Structure of Compensation Contracts." *Journal of Financial Economics*. 62:3, pp. 453–88.

Rappaport, Alfred. 1999. "New Thinking on How to Link Executive Pay with Performance." *Harvard Business Review*. March/April, pp. 91–101.

Rose, Nancy L. and Catherine Wolfram. 2002. "Regulating Executive Pay: Using the Tax Code to Influence Chief Executive Officer Compensation." *Journal of Labor Economics*. April, 20, pp. 138–75.

Schizer, David M. 2000. "Executives and Hedging: The Fragile Legal Foundation of Incentive Compatibility." *Columbia Law Review*. 100:2, pp. 440–504.

Stern, Joel M., G. Bennett Stewart and Donald H. Chew. 1995. "The EVA Financial Management System." *Journal of Applied Corporate Finance*. 8:3, pp. 32–46.

Zheng, Liu. 2003. "Six-Month-One-Day Option Exchange: The Impact of the Accounting Rule on Stock Option Repricing." Unpublished manuscript, University of Southern California.

This article has been cited by:

1. Frans Maloa. 2020. The relationship between the determinants of executive remuneration in South African state-owned enterprises. *SA Journal of Human Resource Management* 18:0. . [[Crossref](#)]
2. Haifa Amairi, Boushra El Haj Hassan, Janelle Mann. Stock Option Manipulations 383–401. [[Crossref](#)]
3. Yongqiang Chu, Ming Liu, Tao Ma, Xinming Li. 2020. Executive compensation and corporate risk-taking: Evidence from private loan contracts. *Journal of Corporate Finance* 64, 101683. [[Crossref](#)]
4. Emmanuel Mamatzakis, Anna Bagntasarian. 2020. The nexus between CEO incentives and analysts' earnings forecasts. *International Journal of Finance & Economics* 54. . [[Crossref](#)]
5. Heeick Choi, Hyung Tae (Ted) Kim, Seung Won Lee, Songtao Mo. 2020. The effects of SFAS-123R on corporate investment. *Applied Economics Letters* 27:10, 803–809. [[Crossref](#)]
6. Yue-e Long, Xinyi Huang. 2020. Do equity incentives for the managements have impact on stock-pricing efficiency? Evidence from China. *International Journal of Accounting & Information Management* 28:4, 703–715. [[Crossref](#)]
7. Muna Ibrahim Alsheikh. 2020. Beliefs-dependent utilities do influence firm-specific wealth (executives' inside equity holdings). *Journal of Economics and Business* 109, 105892. [[Crossref](#)]
8. Marcelo Daniel Araujo Ermel, Vanessa Medeiros. 2020. Stock-based compensation plan: an analysis of the determinants of its use. *Revista Contabilidade & Finanças* 31:82, 84–98. [[Crossref](#)]
9. F. M. Scherer. 2020. Managerial Control and Executive Compensation. *Review of Industrial Organization* 56:2, 315–327. [[Crossref](#)]
10. Chun-You Ko, Hunghua Pan, Li-Chun Kuo, Yen-Chun Ko. 2020. The association between non-executive compensation and firm performance. *Asia-Pacific Journal of Accounting & Economics* 39, 1–16. [[Crossref](#)]
11. Fabrizio Ferri, Nan Li. 2020. Does Option-Based Compensation Affect Payout Policy? Evidence from FAS 123R. *Journal of Financial and Quantitative Analysis* 55:1, 291–329. [[Crossref](#)]
12. Renfu Luo, Grant Miller, Scott Rozelle, Sean Sylvia, Marcos Vera-Hernández. 2020. Can Bureaucrats Really Be Paid Like Ceos? Substitution Between Incentives and Resources Among School Administrators in China. *Journal of the European Economic Association* 18:1, 165–201. [[Crossref](#)]
13. Fabrizia Sarto. Bonuses (Employee for Performance) 1–7. [[Crossref](#)]
14. Michael Mayberry, Hyun Jong Park, Tian Xu. 2020. Risk-Taking Incentives and Earnings Management: New Evidence. *SSRN Electronic Journal* . [[Crossref](#)]
15. Fabián Blanes, Cristina de Fuentes, Rubén Porcuna. 2020. Executive remuneration determinants: New evidence from meta-analysis. *Economic Research-Ekonomska Istraživanja* 33:1, 2844–2866. [[Crossref](#)]
16. Brian Hill. 2020. Being up Front about Income Inequality. *SSRN Electronic Journal* . [[Crossref](#)]
17. Alvin Chen. 2020. Firm Performance Pay as Insurance against Promotion Risk. *SSRN Electronic Journal* . [[Crossref](#)]
18. Kevin J. Murphy, Tatiana Sandino. 2020. Compensation Consultants and the Level, Composition, and Complexity of CEO Pay. *The Accounting Review* 95:1, 311–341. [[Crossref](#)]
19. Alaa Alhaj Ismail, Sami Adwan, John Stittle. 2019. Does Accounting Treatment of Share-based Payments Impact Performance Measures for Banks?. *Australian Accounting Review* 29:4, 631–648. [[Crossref](#)]
20. Yan Li, Bao Sun, Shangyao Yu. 2019. Employee stock ownership plan and stock price crash risk. *Frontiers of Business Research in China* 13:1. . [[Crossref](#)]
21. Carola Frydman. 2019. Rising Through the Ranks: The Evolution of the Market for Corporate Executives, 1936–2003. *Management Science* 65:11, 4951–4979. [[Crossref](#)]

22. Ahmad Saiful Azlin Puteh Salin, Zubaidah Ismail, Malcolm Smith, Anuar Nawawi. 2019. Board ethical commitment and corporate performance: Malaysian evidence. *Journal of Financial Crime* **26**:4, 1146-1164. [[Crossref](#)]
23. Nikos Nikiforakis, Jörg Oechssler, Anwar Shah. 2019. Managerial bonuses and subordinate mistreatment. *European Economic Review* **119**, 509-525. [[Crossref](#)]
24. Lee Biggerstaff, Brian Blank, Brad Goldie. 2019. Do incentives work? Option-based compensation and corporate innovation. *Journal of Corporate Finance* **58**, 415-430. [[Crossref](#)]
25. D. Kip Holderness, Adrienna Huffman, Melissa Lewis-Western. 2019. Rank and file equity compensation and earnings management: Evidence from stock options. *Journal of Business Finance & Accounting* **46**:9-10, 1201-1236. [[Crossref](#)]
26. Jingjing Huo. 2019. Left Partisanship and Top Management Pay in Affluent Capitalist Democracies. *Social Forces* **98**:1, 93-118. [[Crossref](#)]
27. Joowoong Park, Jae-Suk Yang. 2019. Moderating Effects of the Timing of Reward Determination and Performance Standards between Rewards and Self-Efficacy for Sustainable Intrinsic Motivation. *Sustainability* **11**:17, 4619. [[Crossref](#)]
28. Steven Balsam, Ki Kyung Song. 2019. Another Consequence of SFAS 123R: Equity Compensation to Retirement Eligible CEOs. *Journal of Financial Reporting* **4**:2, 33-59. [[Crossref](#)]
29. Julie Elston. 2019. Corporate governance: what we know and what we don't know. *Journal of Industrial and Business Economics* **46**:2, 147-156. [[Crossref](#)]
30. Shafiu I. Abdullah. Chapter 7 Risk Management and Corporate Governance: An Islamic Perspective 87-99. [[Crossref](#)]
31. Cristi A. Gleason, Matthew Glendening. 2019. Lobbying and Opposition to SFAS No. 123(R): An Examination of Campaign Contributions from CEOs and PACs. *Accounting Horizons* **33**:1, 103-124. [[Crossref](#)]
32. Thi Thanh Nha Vo, Jean Milva Canil. 2019. CEO pay disparity: Efficient contracting or managerial power?. *Journal of Corporate Finance* **54**, 168-190. [[Crossref](#)]
33. Frederic M. Scherer. 2019. Managerial Control and Executive Compensation. *SSRN Electronic Journal* . [[Crossref](#)]
34. Oghenovo A. Ogburn. 2019. Absent Collusion, Can Micro Level Discrimination Aggregate into Macro Level Discrimination?. *SSRN Electronic Journal* . [[Crossref](#)]
35. Jung Ho Choi, Brandon Gipper, Shawn Shi. 2019. Executive Pay for Luck: New Evidence Over the Last 20 Years. *SSRN Electronic Journal* . [[Crossref](#)]
36. Justin Chircop, Monika Tarsalewska, Agnieszka Trzeciakiewicz. 2019. CEO Risk Taking Equity Incentives and Workplace Misconduct. *SSRN Electronic Journal* . [[Crossref](#)]
37. Rupak Chatterjee, Zhenyu Cui, Jiacheng Fan, Mingzhe Liu. 2018. An efficient and stable method for short maturity Asian options. *Journal of Futures Markets* **38**:12, 1470-1486. [[Crossref](#)]
38. Emilie R. Feldman, Claudine Gartenberg, Julie Wulf. 2018. Pay inequality and corporate divestitures. *Strategic Management Journal* **39**:11, 2829-2858. [[Crossref](#)]
39. Kwangil Bae, Jangkoo Kang, Hwa-Sung Kim. 2018. Call options with concave payoffs: An application to executive stock options. *Journal of Futures Markets* **38**:8, 943-957. [[Crossref](#)]
40. Jean Canil, Sigitas Karpavičius. 2018. Are employee stock option proceeds a source of finance for investment?. *Journal of Corporate Finance* **50**, 468-483. [[Crossref](#)]
41. Ted O'Donoghue, Jason Somerville. 2018. Modeling Risk Aversion in Economics. *Journal of Economic Perspectives* **32**:2, 91-114. [[Abstract](#)] [[View PDF article](#)] [[PDF with links](#)]

42. T. Beau Page. 2018. CEO attributes, compensation, and firm value: Evidence from a structural estimation. *Journal of Financial Economics* **128**:2, 378-401. [[Crossref](#)]
43. Andrea Melis, Luigi Rombi. 2018. Are optimal contracting and managerial power competing or complementary views? Evidence from the compensation of statutory auditors in Italy. *Corporate Governance: An International Review* **26**:3, 197-218. [[Crossref](#)]
44. Matiur Rahman, Muhammad Mustafa. 2018. Determining total CEO compensation of selected US public companies. *International Journal of Managerial Finance* **14**:2, 170-187. [[Crossref](#)]
45. Connie X. Mao, Chi Zhang. 2018. Managerial Risk-Taking Incentive and Firm Innovation: Evidence from FAS 123R. *Journal of Financial and Quantitative Analysis* **53**:2, 867-898. [[Crossref](#)]
46. Seoyoung Kim, Atulya Sarin, Saagar Sarin. 2018. Do players perform for pay? An empirical examination via NFL players' compensation contracts. *Journal of Banking & Finance* **88**, 330-346. [[Crossref](#)]
47. Erik Devos, William B. Elliott, Richard S. Warr. 2018. The Propensity to Split and CEO Compensation. *Financial Management* **47**:1, 105-129. [[Crossref](#)]
48. Muhammad Umar Boodoo. 2018. Do Highly Unionized Companies Compensate Their CEOs Less in Periods of Financial Distress? Evidence from Canada. *ILR Review* **71**:2, 306-328. [[Crossref](#)]
49. Mario Morroni. The Failure to Predict the Great Recession 29-46. [[Crossref](#)]
50. Ulrike Malmendier. Behavioral Corporate Finance 277-379. [[Crossref](#)]
51. Dan Zhang. 2018. CEO dividend protection. *Journal of Empirical Finance* **45**, 194-211. [[Crossref](#)]
52. Michael L. Bognanno. Executive Compensation 4159-4163. [[Crossref](#)]
53. Wai-Tung Ho, Keunkwan Ryu, Kam-Ming Wan. 2018. Treatment of Outliers: Firm Heterogeneity in Managerial Incentive and Corporate Innovation. *SSRN Electronic Journal* . [[Crossref](#)]
54. Kevin J. Murphy, Michael C. Jensen. 2018. The Politics of Pay: The Unintended Consequences of Regulating Executive Compensation. *SSRN Electronic Journal* . [[Crossref](#)]
55. Dan W. French, Andrew E. Kern, Thibaut Morillon, Adam S. Yore. 2018. The Impact of Exchange Listing on Corporate Governance: Evidence from Direct Listings. *SSRN Electronic Journal* . [[Crossref](#)]
56. Andrew Glen Carrothers, Liufang Yao. 2018. Changing Attitudes toward Executive Perquisites: Indications From TARP. *SSRN Electronic Journal* . [[Crossref](#)]
57. Kevin Koharki, Matthew C. Ringgenberg, Luke Watson. 2018. Risk Can Be Good: The Tradeoff Between Agency Conflicts, CEO Risk-Taking Incentives, and Credit Risk. *SSRN Electronic Journal* . [[Crossref](#)]
58. Alice A. Bonaime, Kathleen M. Kahle, David Moore, Alok Nemani. 2018. The Evolution of Employee Compensation, Dilution, and Payout Policy. *SSRN Electronic Journal* . [[Crossref](#)]
59. Rudy Santore, Martin Tackie. 2017. Equity-based incentive contracts and behavior: Experimental evidence. *Managerial and Decision Economics* **38**:8, 1194-1200. [[Crossref](#)]
60. David Souder, Philip Bromiley. 2017. Timing for Dollars: How Option Exercisability Influences Resource Allocation. *Journal of Management* **43**:8, 2555-2579. [[Crossref](#)]
61. J. Samuel Baixauli-Soler, Maria Belda-Ruiz, Gregorio Sanchez-Marin. 2017. An executive hierarchy analysis of stock options: Does gender matter?. *Review of Managerial Science* **11**:4, 737-766. [[Crossref](#)]
62. dong yeob song, Lee Chang Dai, ###. 2017. The Research of Manger Compensation and Corporate Governance on Manager's Risk. *Korea International Accounting Review* **null**:75, 155-173. [[Crossref](#)]
63. Anna M. Rose, Jacob M. Rose, Ikseon Suh, Joseph C. Ugrin. 2017. Unanticipated effects of restricted stock on managers' risky investment decisions. *Advances in Accounting* **38**, 106-112. [[Crossref](#)]

64. James D. Brushwood, Derek Johnston, Lisa Kutcher. 2017. The Market Valuation of the Permanent Book-to-Tax Differences Generated by Stock-Based Compensation Awards. *Journal of the American Taxation Association* **39**:2, 1-20. [[Crossref](#)]
65. Alexander Merz. 2017. What have we learned from SFAS 123r and IFRS 2? A review of existing evidence and future research suggestions. *Journal of Accounting Literature* **38**, 14-33. [[Crossref](#)]
66. Craig W. Holden, Daniel S. Kim. 2017. Performance share plans: Valuation and empirical tests. *Journal of Corporate Finance* **44**, 99-125. [[Crossref](#)]
67. Joshua Shemesh. 2017. CEO Social Status and Risk-Taking. *Quarterly Journal of Finance* **07**:02, 1750004. [[Crossref](#)]
68. Jeongil Seo. 2017. Board Effectiveness and CEO Pay: Board Information Processing Capacity, Monitoring Complexity, and CEO Pay-for-Performance Sensitivity. *Human Resource Management* **56**:3, 373-388. [[Crossref](#)]
69. Jingoo Kang. 2017. Unobservable CEO Characteristics and CEO Compensation as Correlated Determinants of CSP. *Business & Society* **56**:3, 419-453. [[Crossref](#)]
70. Caspar Rose. 2017. The relationship between corporate governance characteristics and credit risk exposure in banks: implications for financial regulation. *European Journal of Law and Economics* **43**:1, 167-194. [[Crossref](#)]
71. Jared M. Hansen, Robert E. McDonald, Ronald K. Mitchell. Marketing Benchmarking, Triangulated Isomorphism, and Firm Strategy 533-543. [[Crossref](#)]
72. Alex Edmans, Xavier Gabaix, Dirk Jenter. Executive Compensation: A Survey of Theory and Evidence # #We thank Aubrey Clark, Fabrizio Ferri, Carola Frydman, Tom Gosling, Steve Kaplan, Gaizka Ormazabal, Kelly Shue, Alexander Wagner, David Zhang, and especially Pierre Chaigneau for helpful comments and Janet Chater, Irem Erten, Jesus Gorrin, Joseph Kalmenovitz, and Jiaying Wei for research assistance 383-539. [[Crossref](#)]
73. Kelly Shue, Richard R. Townsend. 2017. Growth through rigidity: An explanation for the rise in CEO pay. *Journal of Financial Economics* **123**:1, 1-21. [[Crossref](#)]
74. Vanessa CCmara de medeiros, Marcelo Ermel. 2017. Plano De Remuneracao Baseado EM AAAs: Uma Annlise Dos Determinantes Da Sua Adoooo Nas Empresas Listadas Na BM&FBOVESPA (Stock Options Plans: An Analysis of the Determinants of Its Adoption in the Companies Listed on BM&FBOVESPA). *SSRN Electronic Journal* . [[Crossref](#)]
75. Rupak Chatterjee, Zhenyu Cui, Jiacheng Fan, Mingzhe Liu. 2017. An Efficient and Stable Method for Short Maturity Asian Options. *SSRN Electronic Journal* . [[Crossref](#)]
76. Alex Edmans, Xavier Gabaix, Dirk Jenter. 2017. Executive Compensation: A Survey of Theory and Evidence. *SSRN Electronic Journal* . [[Crossref](#)]
77. Krista B. Lewellyn, Maureen I. Muller-Kahle. 2016. The configurational effects of board monitoring and the institutional environment on CEO compensation: a country-level fuzzy-set analysis. *Journal of Management & Governance* **20**:4, 729-757. [[Crossref](#)]
78. Yaowen Shan, Terry Walter. 2016. Towards a Set of Design Principles for Executive Compensation Contracts. *Abacus* **52**:4, 619-684. [[Crossref](#)]
79. Viktoria Dalko, Michael H. Wang. 2016. Why is insider trading law ineffective? Three antitrust suggestions. *Studies in Economics and Finance* **33**:4, 704-715. [[Crossref](#)]
80. Weifeng He, Wei Liu. 2016. Why do companies appoint independent directors having professional legal expertise?. *China Journal of Accounting Studies* **4**:4, 379-405. [[Crossref](#)]
81. Giuliano Bianchi. 2016. The effect of price targets on the composition of CEO pay. *Applied Economics* **48**:45, 4299-4311. [[Crossref](#)]

82. Bradley W. Benson, Qin Lian, Qiming Wang. 2016. Stock ownership guidelines for CEOs: Do they (not) meet expectations?. *Journal of Banking & Finance* **69**, 52-71. [[Crossref](#)]
83. Ilona Babenko, Rik Sen. 2016. Do Nonexecutive Employees Have Valuable Information? Evidence from Employee Stock Purchase Plans. *Management Science* **62**:7, 1878-1898. [[Crossref](#)]
84. Simona Catuogno, Sara Saggese, Fabrizia Sarto, Riccardo Viganò. 2016. Shedding light on the aim of stock options: a literature review. *Journal of Management & Governance* **20**:2, 387-411. [[Crossref](#)]
85. Caspar Rose. 2016. Firm performance and comply or explain disclosure in corporate governance. *European Management Journal* **34**:3, 202-222. [[Crossref](#)]
86. Tor-Erik Bakke, Hamed Mahmudi, Chitru S. Fernando, Jesus M. Salas. 2016. The causal effect of option pay on corporate risk management. *Journal of Financial Economics* **120**:3, 623-643. [[Crossref](#)]
87. Jeffrey Hales, Ella Mae Matsumura, Donald V. Moser, Rick Payne. 2016. Becoming Sustainable: A Rational Decision Based on Sound Information and Effective Processes?. *Journal of Management Accounting Research* **28**:2, 13-28. [[Crossref](#)]
88. Pamela Brandes, Ravi Dharwadkar, Sanghyun Suh. 2016. I know something you don't know!: The role of linking pin directors in monitoring and incentive alignment. *Strategic Management Journal* **37**:5, 964-981. [[Crossref](#)]
89. Anna Zalewska. 2016. A New Look at Regulating Bankers' Remuneration. *Corporate Governance: An International Review* **24**:3, 322-333. [[Crossref](#)]
90. Nien-Chi Liu, Ming-Yuan Chen, Mei-Ling Wang. 2016. The Effects of Non-Expensed Employee Stock Bonus on Firm Performance: Evidence from Taiwanese High-Tech Firms. *British Journal of Industrial Relations* **54**:1, 30-54. [[Crossref](#)]
91. Yu Zhang, Javier Gimeno. 2016. Earnings Pressure and Long-Term Corporate Governance: Can Long-Term-Oriented Investors and Managers Reduce the Quarterly Earnings Obsession?. *Organization Science* **27**:2, 354-372. [[Crossref](#)]
92. Carole Bernard, Phelim Boyle, Jit Seng Chen. 2016. Power Options in Executive Compensation. *The Journal of Derivatives* **23**:3, 9-20. [[Crossref](#)]
93. Eva R. Porras. Contributors to the Bubble Formation and Contagion Process 55-89. [[Crossref](#)]
94. SSbastien Valeyre, Denis Grebenkov, Qian Liu, Sofiane Aboura, Francois Bonnin. 2016. Should Employers Pay Their Employees Better?. *SSRN Electronic Journal* . [[Crossref](#)]
95. Muhammad Umar Boodoo. 2016. Do Heavily-Unionized Companies Compensate Their CEOs Less in Periods of Financial Distress? Evidence from Canadian Companies During the Financial Crisis. *SSRN Electronic Journal* . [[Crossref](#)]
96. Beau Page. 2016. CEO Attributes, Compensation, and Firm Value: Evidence from a Structural Estimation. *SSRN Electronic Journal* . [[Crossref](#)]
97. Jean Canil, Sigita Karpavicius. 2016. Are Employee Option Proceeds a Source of Finance for Investment?. *SSRN Electronic Journal* . [[Crossref](#)]
98. HYUNGSHIN PARK, DIMITRIS VRETTOS. 2015. The Moderating Effect of Relative Performance Evaluation on the Risk Incentive Properties of Executives' Equity Portfolios. *Journal of Accounting Research* **53**:5, 1055-1108. [[Crossref](#)]
99. Ulrike Malmendier, Geoffrey Tate. 2015. Behavioral CEOs: The Role of Managerial Overconfidence. *Journal of Economic Perspectives* **29**:4, 37-60. [[Abstract](#)] [[View PDF article](#)] [[PDF with links](#)]
100. DIRK JENTER, FADI KANAAN. 2015. CEO Turnover and Relative Performance Evaluation. *The Journal of Finance* **70**:5, 2155-2184. [[Crossref](#)]

101. Pierre Chaigneau. 2015. AVERSION TO THE VARIABILITY OF PAY AND THE STRUCTURE OF EXECUTIVE COMPENSATION CONTRACTS. *Journal of Business Economics and Management* 16:4, 712-732. [[Crossref](#)]
102. Ian Gregory-Smith, Brian G. M. Main. 2015. Heads I win, tails you lose? A career analysis of executive pay and corporate performance. *Cambridge Journal of Economics* 39:5, 1373-1398. [[Crossref](#)]
103. Stefania Albanesi, Claudia Olivetti, María José Prados. Gender and Dynamic Agency: Theory and Evidence on the Compensation of Top Executives 1-59. [[Crossref](#)]
104. Jeffrey Hales, Laura W. Wang, Michael G. Williamson. 2015. Selection Benefits of Stock-Based Compensation for the Rank-and-File. *The Accounting Review* 90:4, 1497-1516. [[Crossref](#)]
105. Elizabeth N. K. Lim. 2015. The role of reference point in CEO restricted stock and its impact on R&D intensity in high-technology firms. *Strategic Management Journal* 36:6, 872-889. [[Crossref](#)]
106. Krishna Reddy, Sazali Abidin, Linjuan You. 2015. Does corporate governance matter in determining CEO compensation in the publicly listed companies in New Zealand? An empirical investigation. *Managerial Finance* 41:3, 301-327. [[Crossref](#)]
107. Sujit Sur, Michel Magnan, James Cordeiro. 2015. Disentangling CEO compensation: A simultaneous examination of time, industry, and firm-level effects. *Canadian Journal of Administrative Sciences / Revue Canadienne des Sciences de l'Administration* 32:1, 30-46. [[Crossref](#)]
108. Kiridaran Kanagaretnam, Gerald J. Lobo, Robert Mathieu. CEO Stock Options and Analysts' Forecast Accuracy and Bias 2621-2651. [[Crossref](#)]
109. William Forbes, Lynn Hodgkinson. Executive Remuneration 34-40. [[Crossref](#)]
110. Ruth V. Aguilera, Kurt Desender, Michael K. Bednar, Jun Ho Lee. 2015. Connecting the Dots: Bringing External Corporate Governance into the Corporate Governance Puzzle. *The Academy of Management Annals* 9:1, 483-573. [[Crossref](#)]
111. Marc van Essen, Jordan Otten, Edward J. Carberry. 2015. Assessing Managerial Power Theory. *Journal of Management* 41:1, 164-202. [[Crossref](#)]
112. Yicheng Wang. 2015. Can Wage Dynamics in Long-term Employment Relationships Help Mitigate Financial Shocks. *SSRN Electronic Journal* . [[Crossref](#)]
113. Stefania Albanesi, Claudia Olivetti, Maria Jose Prados. 2015. Gender and Dynamic Agency: Theory and Evidence on the Compensation of Top Executives. *SSRN Electronic Journal* . [[Crossref](#)]
114. Ruth V. Aguilera, Kurt Desender, Michael K. Bednar, Jun Ho Lee. 2015. Connecting the Dots: Bringing External Corporate Governance into the Corporate Governance Puzzle. *Academy of Management Annals* 9:1, 483-573. [[Crossref](#)]
115. Georgios Voulgaris, Konstantinos Stathopoulos, Martin Walker. 2014. IFRS and the Use of Accounting-Based Performance Measures in Executive Pay. *The International Journal of Accounting* 49:4, 479-514. [[Crossref](#)]
116. Rachel Griffith, Helen Miller. 2014. Taxable Corporate Profits. *Fiscal Studies* 35:4, 535-557. [[Crossref](#)]
117. Salvatore Miglietta. 2014. Incentives and Relative Wealth Concerns. *Quarterly Journal of Finance* 04:04, 1450013. [[Crossref](#)]
118. Robert M. Gillenkirch, Achim Hendriks, Susanne A. Welker. 2014. Effects of Executive Compensation Complexity on Investor Behaviour in an Experimental Stock Market. *European Accounting Review* 23:4, 625-645. [[Crossref](#)]
119. An Chen, Markus Pelger. 2014. Optimal stock option schemes for managers. *Review of Managerial Science* 8:4, 437-464. [[Crossref](#)]

120. Steven Balsam, Il-woon Kim, David Ryan, Hakjoon Song. 2014. Stock option modification under SFAS 123(R). *Journal of Financial Reporting and Accounting* 12:2, 177-195. [[Crossref](#)]
121. An Chen. 2014. Incentive-compatible compensation and regulation. *Applied Economics* 46:25, 3074-3081. [[Crossref](#)]
122. FLORIAN S. PETERS, ALEXANDER F. WAGNER. 2014. The Executive Turnover Risk Premium. *The Journal of Finance* 69:4, 1529-1563. [[Crossref](#)]
123. Susana Álvarez-Diez, J. Samuel Baixauli-Soler, María Belda-Ruiz. 2014. Are we using the wrong letters? An analysis of executive stock option Greeks. *Central European Journal of Operations Research* 22:2, 237-262. [[Crossref](#)]
124. Shenglan Chen, Hui Ma, Danlu Bu. 2014. Board affiliation and pay gap. *China Journal of Accounting Research* 7:2, 81-100. [[Crossref](#)]
125. Ali Alper Yayla, Qing Hu. 2014. The Effect of Board of Directors' IT Awareness on CIO Compensation and Firm Performance. *Decision Sciences* 45:3, 401-436. [[Crossref](#)]
126. . Bibliography 685-697. [[Crossref](#)]
127. Thomas Piketty, Emmanuel Saez, Stefanie Stantcheva. 2014. Optimal Taxation of Top Labor Incomes: A Tale of Three Elasticities. *American Economic Journal: Economic Policy* 6:1, 230-271. [[Abstract](#)] [[View PDF article](#)] [[PDF with links](#)]
128. Paula Faria, Francisco Vitorino Martins, Elísio Brandão. 2014. The Level of CEO Compensation for the Short and Long-term – A View on High-tech Firms. *Procedia - Social and Behavioral Sciences* 110, 1023-1032. [[Crossref](#)]
129. Kelly Shue, Richard R. Townsend. 2014. Growth Through Rigidity: An Explanation of the Rise of CEO Pay. *SSRN Electronic Journal* . [[Crossref](#)]
130. Tanseli Savaser, Elif Sisli Ciamarra. 2014. Managerial Performance Incentives and Firm Risk during Economic Expansions and Recessions. *SSRN Electronic Journal* . [[Crossref](#)]
131. Chang Mo Kang. 2014. Managerial Incentives, Moral Hazard and Risk Management. *SSRN Electronic Journal* . [[Crossref](#)]
132. Alessandro Giosi, Silvia Testarmata, Marco Caiffa. 2014. Do stock option plans affect the firm's performance? An empirical analysis on the Italian context. *Corporate Ownership and Control* 11:4, 81-95. [[Crossref](#)]
133. Minhua Yang. 2014. Does CEO make a better acquisition decision after SOX?. *Corporate Ownership and Control* 11:2, 389-403. [[Crossref](#)]
134. Chia-Wei Chen, Bingsheng Yi, J. Barry Lin. 2013. Media coverage, board structure and CEO compensation: Evidence from Taiwan. *Journal of Multinational Financial Management* 23:5, 434-445. [[Crossref](#)]
135. Denice Pretorius, Charl de Villiers. 2013. The effect of expensing share-based payments on basic earnings per share of South African listed companies. *Meditari Accountancy Research* 21:2, 178-190. [[Crossref](#)]
136. Xingyun Dai, Sicong Dai, Kemin Wang. 2013. Exercise price regulation and the timing of ESO reports: evidence from China. *China Finance Review International* 3:3, 264-283. [[Crossref](#)]
137. Oliver G. Spalt. 2013. Probability Weighting and Employee Stock Options. *Journal of Financial and Quantitative Analysis* 48:4, 1085-1118. [[Crossref](#)]
138. Baomin Dong, Guixia Guo, Frank Yong Wang. 2013. Dynamic Moral Hazard and Executive Stock Options. *Pacific Economic Review* 18:2, 259-279. [[Crossref](#)]
139. An Chen, Markus Pelger, Klaus Sandmann. 2013. New performance-vested stock option schemes. *Applied Financial Economics* 23:8, 709-727. [[Crossref](#)]

140. Yisong S. Tian. 2013. Ironing out the kinks in executive compensation: Linking incentive pay to average stock prices. *Journal of Banking & Finance* 37:2, 415-432. [[Crossref](#)]
141. Marina Gigliotti. 2013. The compensation of top managers and the performance of Italian firms. *The International Journal of Human Resource Management* 24:4, 889-903. [[Crossref](#)]
142. Roberto Barontini, Lino Cinquini, Riccardo Giannetti, Andrea Tenucci. Models of performance and value measurement in service systems 105-129. [[Crossref](#)]
143. Luc Van Liedekerke. Executive Compensation and Distributive Justice 761-774. [[Crossref](#)]
144. Kevin J. Murphy. Executive Compensation: Where We Are, and How We Got There 211-356. [[Crossref](#)]
145. Dirk Broeders, An Chen. 2013. Incentive Compatible Compensation and Regulation. *SSRN Electronic Journal* . [[Crossref](#)]
146. Claudine Madras Gartenberg, Julie M. Wulf. 2013. Pay Harmony: Peer Comparison and Executive Compensation. *SSRN Electronic Journal* . [[Crossref](#)]
147. Dan Zhang. 2013. CEO Dividend Protection. *SSRN Electronic Journal* . [[Crossref](#)]
148. Frédéric Teulon. 2013. La rémunération des dirigeants : problème interne ou problème de société(s) ?. *Question(s) de management* 4:3, 19. [[Crossref](#)]
149. Bonnard Claire. 2013. Les incitations à l'innovation dans le secteur privé. *Recherches économiques de Louvain* 79:2, 45. [[Crossref](#)]
150. John Armour, Bernard Black, Brian Cheffins. 2012. Is Delaware Losing its Cases?. *Journal of Empirical Legal Studies* 9:4, 605-656. [[Crossref](#)]
151. Edward J. Carberry, Brayden G King. 2012. Defensive Practice Adoption in the Face of Organizational Stigma: Impression Management and the Diffusion of Stock Option Expensing. *Journal of Management Studies* 49:7, 1137-1167. [[Crossref](#)]
152. Richard A. Lord, Yoshie Saito. 2012. Does Compensation Structure Alleviate Personal CEO Risks?. *Journal of Business Finance & Accounting* 39:9-10, 1272-1297. [[Crossref](#)]
153. Terrance R. Skantz. 2012. CEO Pay, Managerial Power, and SFAS 123(R). *The Accounting Review* 87:6, 2151-2179. [[Crossref](#)]
154. Liu Zheng, Xianming Zhou. 2012. Executive Stock Options and Manipulated Stock-Price Performance. *International Review of Finance* 12:3, 249-281. [[Crossref](#)]
155. Andrea Melis, Silvia Carta, Silvia Gaia. 2012. Executive remuneration in blockholder-dominated firms. How do Italian firms use stock options?. *Journal of Management & Governance* 16:3, 511-541. [[Crossref](#)]
156. Nancy Mohan, M. Fall Ainina. 2012. The effect of SFAS No. 123(R) on executive incentive pay. *International Journal of Accounting & Information Management* 20:3, 282-299. [[Crossref](#)]
157. Olaf Korn, Clemens Paschke, Marliese Uhrig-Homburg. 2012. Robust stock option plans. *Review of Quantitative Finance and Accounting* 39:1, 77-103. [[Crossref](#)]
158. Sandra Alves. 2012. Executive stock options and earnings management in the portuguese listed companies. *Revista de Contabilidade* 15:2, 211-235. [[Crossref](#)]
159. Rachel M. Hayes, Michael Lemmon, Mingming Qiu. 2012. Stock options and managerial incentives for risk taking: Evidence from FAS 123R. *Journal of Financial Economics* 105:1, 174-190. [[Crossref](#)]
160. Photis Lysandrou, Daniella Parker. 2012. Commercial corporate governance ratings: an alternative view of their use and impact. *International Review of Applied Economics* 26:4, 445-463. [[Crossref](#)]
161. Wafa Essid. 2012. Executive stock options and earnings management: is there an option level dependence?. *Corporate Governance: The international journal of business in society* 12:1, 54-70. [[Crossref](#)]

162. Chun-Hua Tang. 2012. Revisiting the incentive effects of executive stock options. *Journal of Banking & Finance* **36**:2, 564-574. [[Crossref](#)]
163. Hui Di, Steven A. Hanke, Wei-Chih Chiang. 2012. A censored quantile regression analysis of employee stock options substitution for debt and the impact of SFAS 123R. *Managerial Finance* **38**:2, 165-187. [[Crossref](#)]
164. . The Joint Discipline of Option and Debt: Theory and Evidence from CEO's Equity Holding, Capital Structure, and Executive Compensation 79-125. [[Crossref](#)]
165. Stephen B. McKeon. 2012. Manager-Initiated versus Investor-Initiated Equity Issuances. *SSRN Electronic Journal* . [[Crossref](#)]
166. Martin Szydlowski. 2012. Ambiguity in Dynamic Contracts. *SSRN Electronic Journal* . [[Crossref](#)]
167. An Chen, Markus Pelger. 2012. Optimal Payoff Schemes for Managers (Symmetric Information Case). *SSRN Electronic Journal* . [[Crossref](#)]
168. An Chen, Markus Pelger. 2012. Optimal Payoff Schemes for Managers (Asymmetric Information Case). *SSRN Electronic Journal* . [[Crossref](#)]
169. Jeongil Seo. 2012. Board Information Processing Capacity and CEO Pay-for-Performance Sensitivity. *SSRN Electronic Journal* . [[Crossref](#)]
170. Kevin J. Murphy. 2012. Executive Compensation: Where We are, and How We Got There. *SSRN Electronic Journal* . [[Crossref](#)]
171. Brian S. Silverman, Paul L. Ingram. 2012. Managing Agency Problems in Early Shareholder Capitalism: An Exploration of Liverpool Shipping in the 18th Century. *SSRN Electronic Journal* . [[Crossref](#)]
172. Woonam Seok, Changmin Lee, Hyoung Goo Kang. 2012. How Board Quality Affects CEO and Executive Team Pay. *SSRN Electronic Journal* . [[Crossref](#)]
173. Tomislav Ladika. 2012. Do Firms Replenish Executives' Incentives after Equity Sales?. *SSRN Electronic Journal* . [[Crossref](#)]
174. Kam-Ming Wan. 2012. Incentive Contracts are Not Rigged by Powerful CEOs. *SSRN Electronic Journal* . [[Crossref](#)]
175. Jeffrey Hales, Laura W. Wang, Michael G. Williamson. 2012. Selection Benefits of Stock-Based Compensation for the Rank-and-File. *SSRN Electronic Journal* . [[Crossref](#)]
176. Craig W. Holden, Daniel Sungyeon Kim. 2012. Performance Share Plans: Valuation and Optimal Design. *SSRN Electronic Journal* . [[Crossref](#)]
177. S. Katie Moon. 2012. Firm Risk Taking versus CEO Diversification: Evidence from Outsourcing Firms. *SSRN Electronic Journal* . [[Crossref](#)]
178. Lilian Ng, Valeriy Sibilkov, Qinghai Wang, Nataliya Zaiats. 2011. Does shareholder approval requirement of equity compensation plans matter?. *Journal of Corporate Finance* **17**:5, 1510-1530. [[Crossref](#)]
179. Hong Nee Ang, Matthew Pinnuck. 2011. Does the change of accounting regulation on employee share options give rise to greater scope for earnings management?. *Pacific Accounting Review* **23**:3, 316-344. [[Crossref](#)]
180. Lawrence D. Brown, Yen-Jung Lee. 2011. Changes in Option-Based Compensation Around the Issuance of SFAS 123R. *Journal of Business Finance & Accounting* **38**:9-10, 1053-1095. [[Crossref](#)]
181. Jae Yong Shin, Jeongil Seo. 2011. Less Pay and More Sensitivity? Institutional Investor Heterogeneity and CEO Pay. *Journal of Management* **37**:6, 1719-1746. [[Crossref](#)]

182. Nick Lin-Hi, Igor Blumberg. 2011. The relationship between corporate governance, global governance, and sustainable profits: lessons learned from BP. *Corporate Governance: The international journal of business in society* 11:5, 571-584. [[Crossref](#)]
183. SIMON GERVAIS, J. B. HEATON, TERRANCE ODEAN. 2011. Overconfidence, Compensation Contracts, and Capital Budgeting. *The Journal of Finance* 66:5, 1735-1777. [[Crossref](#)]
184. ADAIR MORSE, VIKRAM NANDA, AMIT SERU. 2011. Are Incentive Contracts Rigged by Powerful CEOs?. *The Journal of Finance* 66:5, 1779-1821. [[Crossref](#)]
185. Jeong-Bon Kim, Yinghua Li, Liandong Zhang. 2011. CFOs versus CEOs: Equity incentives and crashes. *Journal of Financial Economics* 101:3, 713-730. [[Crossref](#)]
186. William Marty Martin, Karen Hunt-Ahmed. 2011. Executive compensation: the role of Shari'a compliance. *International Journal of Islamic and Middle Eastern Finance and Management* 4:3, 196-210. [[Crossref](#)]
187. Helmut M. Dietl, Tobias Duschl, Markus Lang. 2011. Executive Pay Regulation: What Regulators, Shareholders, and Managers Can Learn from Major Sports Leagues. *Business and Politics* 13:2, 1-30. [[Crossref](#)]
188. Yu Peng Lin, James C. Sesil. 2011. Do Broad-Based Stock Options Promote Organization Capital?. *British Journal of Industrial Relations* 49, s402-s416. [[Crossref](#)]
189. JAMES C. SESIL, YU PENG LIN. 2011. The Impact of Employee Stock Option Adoption and Incidence on Productivity: Evidence from U.S. Panel Data. *Industrial Relations: A Journal of Economy and Society* 50:3, 514-534. [[Crossref](#)]
190. Yujun Lian, Zhi Su, Yuedong Gu. 2011. Evaluating the effects of equity incentives using PSM: Evidence from China. *Frontiers of Business Research in China* 5:2, 266-290. [[Crossref](#)]
191. Rujing Meng, Xiangdong Ning, Xianming Zhou, Hongquan Zhu. 2011. Do ESOPs enhance firm performance? Evidence from China's reform experiment. *Journal of Banking & Finance* 35:6, 1541-1551. [[Crossref](#)]
192. David Veenman, Allan Hodgson, Bart Van Praag, Wei Zhang. 2011. Decomposing Executive Stock Option Exercises: Relative Information and Incentives to Manage Earnings. *Journal of Business Finance & Accounting* 38:5-6, 536-573. [[Crossref](#)]
193. ILONA BABENKO, MICHAEL LEMMON, YURI TSERLUKEVICH. 2011. Employee Stock Options and Investment. *The Journal of Finance* 66:3, 981-1009. [[Crossref](#)]
194. Na Gong, Jun Shao. The research on the incentive mechanism of stock options of the electronic commerce in China: The analysis based on the human capital theory 1-4. [[Crossref](#)]
195. Jeff P. Boone, Inder K. Khurana, K. K. Raman. 2011. Investor pricing of CEO equity incentives. *Review of Quantitative Finance and Accounting* 36:3, 417-435. [[Crossref](#)]
196. Jie Cai, Ralph A. Walkling. 2011. Shareholders' Say on Pay: Does It Create Value?. *Journal of Financial and Quantitative Analysis* 46:02, 299-339. [[Crossref](#)]
197. Phelim P. Boyle, Ranjini Jha, Shannon Kennedy, Weidong Tian. 2011. Stock and Option Proportions in Executive Compensation. *Quarterly Journal of Finance* 01:01, 169-203. [[Crossref](#)]
198. Menachem Abudy, Simon Benninga. 2011. Taxation and the value of employee stock options. *International Journal of Managerial Finance* 7:1, 9-37. [[Crossref](#)]
199. R. Barontini, L. Cinquini, R. Giannetti, A. Tenucci. Modelli di misurazione della performance e del valore nel sistema dei servizi 135-161. [[Crossref](#)]
200. Margit Osterloh, Bruno S. Frey, Hossam Zeitoun. Corporate Governance as an Institution to Overcome Social Dilemmas 49-73. [[Crossref](#)]
201. John A. List, Imran Rasul. Field Experiments in Labor Economics 103-228. [[Crossref](#)]

202. James B. Rebitzer, Lowell J. Taylor. Extrinsic Rewards and Intrinsic Motives: Standard and Behavioral Approaches to Agency and Labor Markets 701-772. [[Crossref](#)]
203. Sandra Alves. 2011. The association between executive stock options and corporate performance: evidence from Portugal. *International Journal of Business Governance and Ethics* 6:2, 203. [[Crossref](#)]
204. Oliver G. Spalt. 2011. Probability Weighting and Employee Stock Options. *SSRN Electronic Journal* . [[Crossref](#)]
205. Ilona Babenko. 2011. Why Firms Issue Stock to Their Own Employees?. *SSRN Electronic Journal* . [[Crossref](#)]
206. Salvatore Miglietta. 2011. Incentives and Relative-Wealth Concerns: Theory and Evidence. *SSRN Electronic Journal* . [[Crossref](#)]
207. Vieri Ceriani, Stefano Manestra, Giacomo Ricotti, Alessandra Sanelli, Ernesto Zangari. 2011. The Tax System and the Financial Crisis. *SSRN Electronic Journal* . [[Crossref](#)]
208. Lilian K. Ng, Valeriy Sibilkov, Qinghai Wang, Nataliya S. Zaiats. 2011. Does Shareholder Approval Requirement of Equity Compensation Plans Matter?. *SSRN Electronic Journal* . [[Crossref](#)]
209. Francesco Avallone, Alberto Quagli, Paola Ramassa. 2011. Stock Option Plans in Italy: Accounting Treatment, Financial Crisis, and Other Determinants. *SSRN Electronic Journal* . [[Crossref](#)]
210. Yisong S. Tian. 2011. Ironing Out the Wrinkles in Executive Compensation: Linking Incentive Pay to Average Stock Prices. *SSRN Electronic Journal* . [[Crossref](#)]
211. Mitchell Berke Langbert, Marc Fox. 2011. The Compensation and Benefits of Private University and College Presidents. *SSRN Electronic Journal* . [[Crossref](#)]
212. Peiyi Yu, Jessica Hong Yang, Nada Kakabadse. 2011. Developing “best practices” for bankers’ pay in line with Basel III. *Risk Governance and Control: Financial Markets and Institutions* 1:3, 7-16. [[Crossref](#)]
213. MING-YUAN CHEN. 2010. THE COMPONENTS OF MANAGERIAL PAY ADJUSTMENTS AND THEIR IMPACT ON FIRM PERFORMANCE. *The Manchester School* 78:6, 582-608. [[Crossref](#)]
214. Carola Frydman, Dirk Jenter. 2010. CEO Compensation. *Annual Review of Financial Economics* 2:1, 75-102. [[Crossref](#)]
215. Andrea Melis, Silvia Carta. 2010. Does accounting regulation enhance corporate governance? Evidence from the disclosure of share-based remuneration. *Journal of Management & Governance* 14:4, 435-446. [[Crossref](#)]
216. Yael V. Hochberg, Laura Lindsey. 2010. Incentives, Targeting, and Firm Performance: An Analysis of Non-executive Stock Options. *Review of Financial Studies* 23:11, 4148-4186. [[Crossref](#)]
217. KYRIACOS KYRIACOU, KUL B. LUINTEL, BRYAN MASE. 2010. Private Information in Executive Stock Option Trades: Evidence of Insider Trading in the UK. *Economica* 77:308, 751-774. [[Crossref](#)]
218. Hsin-Yi Yu. 2010. Politically-Connected Boards and the Structure of Chief Executive Officer Compensation Packages in Taiwanese Firms*. *Asia-Pacific Journal of Financial Studies* 39:5, 578-606. [[Crossref](#)]
219. Doyoung Kim. 2010. The use of stock-based pay for sorting: an empirical analysis of compensation for new CEOs. *Applied Economics* 42:23, 2999-3010. [[Crossref](#)]
220. Bradley W. Benson, Wallace N. Davidson. 2010. The Relation between Stakeholder Management, Firm Value, and CEO Compensation: A Test of Enlightened Value Maximization. *Financial Management* 39:3, 929-964. [[Crossref](#)]

221. FERNANDO MUÑOZ-BULLÓN. 2010. Gender-Compensation Differences Among High-Level Executives in the United States. *Industrial Relations: A Journal of Economy and Society* 49:3, 346-370. [[Crossref](#)]
222. Ke Zhong, Robert B. Welker, Donald W. Gribbin. 2010. Method-Shifting in Aggressive Earnings Reporting: The Case of the US Software Industry's Response to New US Regulation. *Journal of Business Finance & Accounting* 37:7-8, 792-814. [[Crossref](#)]
223. Joseph Tao-yi Wang,, Michael Spezio,, Colin F. Camerer. 2010. Pinocchio's Pupil: Using Eyetracking and Pupil Dilation to Understand Truth Telling and Deception in Sender-Receiver Games. *American Economic Review* 100:3, 984-1007. [[Abstract](#)] [[View PDF article](#)] [[PDF with links](#)]
224. Richard Heaney, Vineet Tawani, John Goodwin. 2010. Australian CEO Remuneration*. *Economic Papers: A journal of applied economics and policy* 29:2, 109-127. [[Crossref](#)]
225. Leslie McCall, Christine Percheski. 2010. Income Inequality: New Trends and Research Directions. *Annual Review of Sociology* 36:1, 329-347. [[Crossref](#)]
226. Thomas A. DiPrete, Gregory M. Eirich, Matthew Pittinsky. 2010. Compensation Benchmarking, Leapfrogs, and the Surge in Executive Pay. *American Journal of Sociology* 115:6, 1671-1712. [[Crossref](#)]
227. Carola Frydman, Raven E. Saks. 2010. Executive Compensation: A New View from a Long-Term Perspective, 1936-2005. *Review of Financial Studies* 23:5, 2099-2138. [[Crossref](#)]
228. RICHARD A. POSNER. 2010. From the new institutional economics to organization economics: with applications to corporate governance, government agencies, and legal institutions. *Journal of Institutional Economics* 6:1, 1-37. [[Crossref](#)]
229. Steven N. Kaplan, Joshua Rauh. 2010. Wall Street and Main Street: What Contributes to the Rise in the Highest Incomes?. *Review of Financial Studies* 23:3, 1004-1050. [[Crossref](#)]
230. Derek C. Jones, Panu Kalmi, Mikko Mäkinen. 2010. The productivity effects of stock option schemes: evidence from Finnish panel data. *Journal of Productivity Analysis* 33:1, 67-80. [[Crossref](#)]
231. Ming-Yuan Chen. 2010. Managerial pay adjustments: Decomposition and impact on firm productive efficiency. *Economic Modelling* 27:1, 196-207. [[Crossref](#)]
232. Michael L. Bognanno. Executive Compensation 1-4. [[Crossref](#)]
233. Theresa F. Henry. Does equity compensation induce executives to maximize firm value or their own personal wealth? 111-139. [[Crossref](#)]
234. Wei Zhang, Steven F. Cahan. 2010. Nonrecurring Accounting Transactions and Stock Option Grants. *Journal of Business Finance & Accounting* 37:1-2, 93-129. [[Crossref](#)]
235. Michael Faulkender, Dalida Kadyrzhanova, N. Prabhala, Lemma Senbet. 2010. Executive Compensation: An Overview of Research on Corporate Practices and Proposed Reforms. *Journal of Applied Corporate Finance* 22:1, 107-118. [[Crossref](#)]
236. Anup Srivastava, Senyo Y. Tse. 2010. The Contribution of Delayed Gain Recognition to Trends in Conservatism: A Re-Examination Using a New Approach to Measuring Accounting Conservatism. *SSRN Electronic Journal* . [[Crossref](#)]
237. Ye Cai, Merih Sevilir, Edward Dickersin Van Wesep, Sean Wang. 2010. Managerial Ownership and Employee Risk Bearing. *SSRN Electronic Journal* . [[Crossref](#)]
238. Jennifer L. Blouin, Mary Ellen Carter. 2010. The Economics of Restricted Stock and the Section 83(B) Election. *SSRN Electronic Journal* . [[Crossref](#)]
239. Dwight Steward. 2010. Executive Stock-Based Compensation: A Case Study in Valuing Employee Stock Options and Restricted Stock Issues in a Breach of Contract Case. *SSRN Electronic Journal* . [[Crossref](#)]

240. Ilona Babenko, Rik Sen. 2010. Do Non-Executive Employees Have Information? Evidence from Employee Stock Purchase Plans. *SSRN Electronic Journal* . [[Crossref](#)]
241. Matthieu Bouvard. 2010. Real Option Financing Under Asymmetric Information. *SSRN Electronic Journal* . [[Crossref](#)]
242. Mathieu Lefebvre, Ferdinand Vieider. 2010. Reining in Excessive Risk Taking by Executives: Experimental Evidence. *SSRN Electronic Journal* . [[Crossref](#)]
243. John Armour, Bernard S. Black, Brian R. Cheffins. 2010. Is Delaware Losing its Cases?. *SSRN Electronic Journal* . [[Crossref](#)]
244. An Chen, Markus Pelger, Klaus Sandmann. 2010. New Performance-Vested Stock Option Schemes. *SSRN Electronic Journal* . [[Crossref](#)]
245. James B. Rebitzer, Lowell J. Taylor. 2010. Extrinsic Rewards and Intrinsic Motives: Standard and Behavioral Approaches to Agency and Labor Markets. *SSRN Electronic Journal* . [[Crossref](#)]
246. Joshua Shemesh. 2010. CEO Social Status and Risk Taking. *SSRN Electronic Journal* . [[Crossref](#)]
247. Cécile Cézanne. 2010. Un modèle renouvelé de gouvernance d'entreprise : une évaluation empirique sur données françaises. *Revue d'économie politique* 120:4, 669. [[Crossref](#)]
248. Padma Kadiyala, Gabriella Sierra. 2009. Executive Compensation and Corporate Sustainability. *i-manager's Journal on Management* 4:2, 37-46. [[Crossref](#)]
249. Eahab Elsaid, Wallace N. Davidson, Bradley W. Benson. 2009. CEO compensation structure following succession: Evidence of optimal incentives with career concerns. *The Quarterly Review of Economics and Finance* 49:4, 1389-1409. [[Crossref](#)]
250. John R. Boatright. 2009. From Hired Hands to Co-Owners: Compensation, Team Production, and the Role of the CEO. *Business Ethics Quarterly* 19:4, 471-496. [[Crossref](#)]
251. Marianne Bertrand. 2009. CEOs. *Annual Review of Economics* 1:1, 121-150. [[Crossref](#)]
252. R. B. Adams, D. Ferreira. 2009. Strong Managers, Weak Boards?. *CESifo Economic Studies* 55:3-4, 482-514. [[Crossref](#)]
253. Yi Feng, Yisong S. Tian. 2009. Option Expensing and Managerial Equity Incentives. *Financial Markets, Institutions & Instruments* 18:3, 195-241. [[Crossref](#)]
254. ILONA BABENKO, YURI TSERLUKEVICH. 2009. Analyzing the Tax Benefits from Employee Stock Options. *The Journal of Finance* 64:4, 1797-1825. [[Crossref](#)]
255. Zacharias Sautner, Martin Weber. 2009. HOW DO MANAGERS BEHAVE IN STOCK OPTION PLANS? CLINICAL EVIDENCE FROM EXERCISE AND SURVEY DATA. *Journal of Financial Research* 32:2, 123-155. [[Crossref](#)]
256. Jae Yong Shin. 2009. Stock-Based versus Cash Compensation: Does the Correlation between Earnings and Stock Returns Matter?. *Seoul Journal of Business* 15:1, 121-163. [[Crossref](#)]
257. ANGELO BAGLIONI, LUCA COLOMBO. 2009. MANAGERS' COMPENSATION AND MISREPORTING: A COSTLY STATE VERIFICATION APPROACH. *Economic Inquiry* 47:2, 278-289. [[Crossref](#)]
258. CLAUDIO MICHELACCI, VINCENZO QUADRINI. 2009. Financial Markets and Wages. *Review of Economic Studies* 76:2, 795-827. [[Crossref](#)]
259. Gennaro Bernile, Gregg A. Jarrell. 2009. The impact of the options backdating scandal on shareholders. *Journal of Accounting and Economics* 47:1-2, 2-26. [[Crossref](#)]
260. Alessandro Zattoni, Alessandro Minichilli. 2009. The Diffusion of Equity Incentive Plans in Italian Listed Companies: What is the Trigger?. *Corporate Governance: An International Review* 17:2, 224-237. [[Crossref](#)]

261. Fabrizio Ferri, Tatiana Sandino. 2009. The Impact of Shareholder Activism on Financial Reporting and Compensation: The Case of Employee Stock Options Expensing. *The Accounting Review* **84**:2, 433-466. [[Crossref](#)]
262. Yan Wendy Wu. 2009. The incentive effect of repricing in employee stock options. *Review of Accounting and Finance* **8**:1, 38-53. [[Crossref](#)]
263. Jared D. Harris. 2009. What's Wrong with Executive Compensation?. *Journal of Business Ethics* **85**:S1, 147-156. [[Crossref](#)]
264. Robert Tillman. 2009. Making the rules and breaking the rules: the political origins of corporate corruption in the new economy. *Crime, Law and Social Change* **51**:1, 73-86. [[Crossref](#)]
265. VIDHI CHHAOCHHARIA, YANIV GRINSTEIN. 2009. CEO Compensation and Board Structure. *The Journal of Finance* **64**:1, 231-261. [[Crossref](#)]
266. Timothy Fogarty, Michel L. Magnan, Garen Markarian, Serge Bohdjalian. 2009. Inside Agency: The Rise and Fall of Nortel. *Journal of Business Ethics* **84**:2, 165-187. [[Crossref](#)]
267. Stefania Albanesi, Claudia Olivetti. 2009. Home production, market production and the gender wage gap: Incentives and expectations. *Review of Economic Dynamics* **12**:1, 80-107. [[Crossref](#)]
268. Nien-Chi Liu, Ann Lin, Chung-Hung Lin. 2009. Why do employees hold their vested stocks while they can sell them?. *The International Journal of Human Resource Management* **20**:1, 148-163. [[Crossref](#)]
269. Yael V. Hochberg, Laura Anne Lindsey. 2009. Incentives, Targeting and Firm Performance: An Analysis of Non-Executive Stock Options. *SSRN Electronic Journal* . [[Crossref](#)]
270. Fayez A. Elayan, Thomas O. Meyer, Jennifer Li. 2009. Compensation Contract Adjustments and the Economic Consequences of Financial Reporting in Response to FAS 123R: Accelerated Vesting of Employee Stock Options. *SSRN Electronic Journal* . [[Crossref](#)]
271. Shail Pandit. 2009. Do Bad Boards Allow Bad Acquisitions?. *SSRN Electronic Journal* . [[Crossref](#)]
272. Renee B. Adams, Daniel Ferreira. 2009. Strong Managers, Weak Boards?. *SSRN Electronic Journal* . [[Crossref](#)]
273. Alon Raviv, Yoram Landskroner. 2009. The 2007-2009 Financial Crisis and Executive Compensation: An Analysis and a Proposal for a Novel Structure. *SSRN Electronic Journal* . [[Crossref](#)]
274. John Simpson, Christopher J. Metcalf. 2009. Competition, Contracts, and Innovation. *SSRN Electronic Journal* . [[Crossref](#)]
275. Todd L. Sayre. 2009. The Myth of Shareholder Ownership and Its Implications for Accounting. *SSRN Electronic Journal* . [[Crossref](#)]
276. Robert F. Göx. 2008. Tax incentives for inefficient executive pay and reward for luck. *Review of Accounting Studies* **13**:4, 452-478. [[Crossref](#)]
277. KATSUYUKI KUBO, TAKUJI SAITO. 2008. THE RELATIONSHIP BETWEEN FINANCIAL INCENTIVES FOR COMPANY PRESIDENTS AND FIRM PERFORMANCE IN JAPAN*. *Japanese Economic Review* **59**:4, 401-418. [[Crossref](#)]
278. Arthur Hau. 2008. Economic Foundation of Risk Management, Agency, and Financial Intermediation. *The Journal of Risk Management* **19**:2, 67-101. [[Crossref](#)]
279. Rainer Andergassen. 2008. High-powered incentives and fraudulent behavior: Stock-based versus stock option-based compensation. *Economics Letters* **101**:2, 122-125. [[Crossref](#)]
280. Elie Matta, Paul W. Beamish. 2008. The accentuated CEO career horizon problem: evidence from international acquisitions. *Strategic Management Journal* **29**:7, 683-700. [[Crossref](#)]
281. J. D. Benjamin, P. Chinloy. 2008. Home Equity, Household Savings and Consumption. *The Journal of Real Estate Finance and Economics* **37**:1, 21-32. [[Crossref](#)]

282. John R.M. Hand. 2008. Give everyone a prize? Employee stock options in private venture-backed firms. *Journal of Business Venturing* 23:4, 385-404. [[Crossref](#)]
283. Wei-Min Ma, Wu-Ji Lin, Zhi-Fang Yu. Analysis for the optimal contract with stock grants 1681-1686. [[Crossref](#)]
284. John M. Barron, Glen R. Waddell. 2008. Work hard, not smart: Stock options in executive compensation. *Journal of Economic Behavior & Organization* 66:3-4, 767-790. [[Crossref](#)]
285. Steven T. Petra, Nina T. Dorata. 2008. Corporate governance and chief executive officer compensation. *Corporate Governance: The international journal of business in society* 8:2, 141-152. [[Crossref](#)]
286. H. de La Bruslerie, C. Deffains-Crapsky. 2008. Information asymmetry, contract design and process of negotiation: The stock options awarding case. *Journal of Corporate Finance* 14:2, 73-91. [[Crossref](#)]
287. Robert F. Göx, Uwe Heller. 2008. Risiken und Nebenwirkungen der Offenlegungspflicht von Vorstandsbezügen: Individual- vs. Kollektivausweis. *Schmalenbachs Zeitschrift für betriebswirtschaftliche Forschung* 60:2, 98-123. [[Crossref](#)]
288. Sanjay Deshmukh, Keith M. Howe, Carl Luft. 2008. Stock Option Expensing: The Role of Corporate Governance. *Journal of Applied Corporate Finance* 20:2, 122-128. [[Crossref](#)]
289. Jagadison K. Aier, Jared A. Moore. 2008. The Impact of Tax Status on the Relation between Employee Stock Options and Debt. *Journal of the American Taxation Association* 30:1, 55-75. [[Crossref](#)]
290. Xavier Gabaix, Augustin Landier. 2008. Why Has CEO Pay Increased So Much? *. *Quarterly Journal of Economics* 123:1, 49-100. [[Crossref](#)]
291. Lin Peng, Ailsa Röell. 2008. Executive pay and shareholder litigation*. *Review of Finance* 12:1, 141-184. [[Crossref](#)]
292. Michael Sauer, Zacharias Sautner. 2008. Stock Option Repricing in Europe. *SSRN Electronic Journal* . [[Crossref](#)]
293. Michel Magnan, Timothy J. Fogarty, Garen Markarian, Serge Bohdjalian. 2008. Inside Agency: The Rise and Fall of Nortel. *SSRN Electronic Journal* . [[Crossref](#)]
294. Olaf Korn, Marliese Uhrig-Homburg, Clemens Paschke. 2008. Designing Robust Stock Option Plans. *SSRN Electronic Journal* . [[Crossref](#)]
295. Ilona Babenko, Michael L. Lemmon, Yuri Tserlukevich. 2008. Employee Stock Options, Financing Constraints, and Real Investment: Theory and Evidence. *SSRN Electronic Journal* . [[Crossref](#)]
296. Effi Benmelech, Eugene Kandel, Pietro Veronesi. 2008. Stock-Based Compensation and CEO (Dis)Incentives. *SSRN Electronic Journal* . [[Crossref](#)]
297. Katja Rost, Sören Salomo, Margit Osterloh. 2008. CEO Appointments and the Loss of Firm-Specific Knowledge - Putting Integrity Back into Hiring Decisions. *SSRN Electronic Journal* . [[Crossref](#)]
298. Olaf Korn, Clemens Paschke, Marliese Uhrig-Homburg. 2008. Designing Robust Stock Option Plans. *SSRN Electronic Journal* . [[Crossref](#)]
299. Rogelio J. Cardona. 2008. Equity Compensation Plans after SFAS 123 (R)*. *SSRN Electronic Journal* . [[Crossref](#)]
300. Mahmoud Agha. 2008. Investment, Dividends, Firm Performance and Managerial Incentives: Another Insight into the Role of Corporate Governance. *SSRN Electronic Journal* . [[Crossref](#)]
301. Salvatore Miglietta. 2008. Incentive Contracts and Status-Concerned Agents. *SSRN Electronic Journal* . [[Crossref](#)]
302. Suman Banerjee, Thomas H. Noe, Vladimir A. Gatchev. 2008. Doom or Gloom? CEO Stock Options After Enron. *SSRN Electronic Journal* . [[Crossref](#)]

303. Gennaro Bernile, Gregg A. Jarrell. 2008. The Impact of the Options Backdating Scandal on Shareholders. *SSRN Electronic Journal* . [[Crossref](#)]
304. Melanie Cao, Rong Wang. 2008. Search for Optimal CEO Compensation: Theory and Empirical Evidence. *SSRN Electronic Journal* . [[Crossref](#)]
305. Jap Efendi, Anup Srivastava, Edward P. Swanson. 2007. Why do corporate managers misstate financial statements? The role of option compensation and other factors. *Journal of Financial Economics* **85**:3, 667-708. [[Crossref](#)]
306. Gary K. Meek, Ramesh P. Rao, Christopher J. Skousen. 2007. Evidence on factors affecting the relationship between CEO stock option compensation and earnings management. *Review of Accounting and Finance* **6**:3, 304-323. [[Crossref](#)]
307. Michelle Lowry, Kevin J. Murphy. 2007. Executive stock options and IPO underpricing. *Journal of Financial Economics* **85**:1, 39-65. [[Crossref](#)]
308. Tord Andersson, Colin Haslam, Edward Lee, Nick Tsitisianis. 2007. Financialized accounts: Share buy-backs, mark to market and holding the financial line in the S&P 500. *Accounting Forum* **31**:2, 165-178. [[Crossref](#)]
309. Carola Frydman. 2007. The Evolution of the Market for Corporate Executives across the Twentieth Century. *The Journal of Economic History* **67**:02. . [[Crossref](#)]
310. Jared Harris, Philip Bromiley. 2007. Incentives to Cheat: The Influence of Executive Compensation and Firm Performance on Financial Misrepresentation. *Organization Science* **18**:3, 350-367. [[Crossref](#)]
311. Randall A. Heron, Erik Lie, Tod Perry. 2007. On the Use (and Abuse) of Stock Option Grants. *Financial Analysts Journal* **63**:3, 17-27. [[Crossref](#)]
312. Wayne Landsman, Mark Lang, Shu Yeh. 2007. Governance and the Split of Options between Executive and Nonexecutive Employees. *Journal of Accounting, Auditing & Finance* **22**:2, 109-138. [[Crossref](#)]
313. David B. Farber, Marilyn F. Johnson, Kathy R. Petroni. 2007. Congressional Intervention in the Standard-Setting Process: An Analysis of the Stock Option Accounting Reform Act of 2004. *Accounting Horizons* **21**:1, 1-22. [[Crossref](#)]
314. INGOLF DITTMANN, ERNST MAUG. 2007. Lower Salaries and No Options? On the Optimal Structure of Executive Pay. *The Journal of Finance* **62**:1, 303-343. [[Crossref](#)]
315. Jeffrey T. Brookman, Saeyoung Chang, Craig G. Rennie. 2007. CEO Cash and Stock-Based Compensation Changes, Layoff Decisions, and Shareholder Value. *The Financial Review* **42**:1, 99-119. [[Crossref](#)]
316. Christian Langmann. 2007. Stock Market Reaction and Stock Option Plans: Evidence from Germany. *Schmalenbach Business Review* **59**:1, 85-106. [[Crossref](#)]
317. Markus C. Arnold, Robert M. Gillenkirch. 2007. Leistungsanreize durch Aktien oder Optionen? Eine Diskussion des State of the Art. *Journal of Business Economics* **77**:1, 75-99. [[Crossref](#)]
318. Takao Kato, Woonchan Kim, Ju Ho Lee. 2007. Executive compensation, firm performance, and Chaebols in Korea: Evidence from new panel data. *Pacific-Basin Finance Journal* **15**:1, 36-55. [[Crossref](#)]
319. Katja Rost. 2007. CEO Pay and Appointments: Putting Integrity Back into Hiring Decisions. *SSRN Electronic Journal* . [[Crossref](#)]
320. Ernie Englander, Allen Kaufman. 2007. Sarbanes-Oxley and the New Corporate Governance in the United States. *SSRN Electronic Journal* . [[Crossref](#)]
321. Markus M. Schmid, Heinz Zimmermann. 2007. Managerial Incentives and Firm Valuation - Evidence from Switzerland. *SSRN Electronic Journal* . [[Crossref](#)]
322. Yi Feng, Yisong S. Tian. 2007. Option Expensing and Executive Compensation. *SSRN Electronic Journal* . [[Crossref](#)]

323. Kevin J. Murphy, Jan Zabochnik. 2007. Managerial Capital and the Market for CEOs. *SSRN Electronic Journal* . [[Crossref](#)]
324. Geoffrey Poitras. 2007. Accounting standards for employee stock option disclosure: The current debate. *Corporate Ownership and Control* 4:3, 87-95. [[Crossref](#)]
325. Chongwoo Choe, Xiangkang Yin. 2006. Should Executive Stock Options Be Abandoned?. *Australian Journal of Management* 31:2, 163-179. [[Crossref](#)]
326. Henrik Glimstedt, William Lazonick, Hao Xie. 2006. The evolution and allocation of employee stock options: adapting US-style compensation to the Swedish business model. *European Management Review* 3:3, 156-176. [[Crossref](#)]
327. Paul Oyer, Scott Schaefer. 2006. Costs of broad-based stock option plans. *Journal of Financial Intermediation* 15:4, 511-534. [[Crossref](#)]
328. RÉJEAN BELZILE, ANNE FORTIN, CHANTAL VIGER. 2006. Recognition versus Disclosure of Stock Option Compensation: An Analysis of Judgements and Decisions of Nonprofessional Investors/CONSTATER OU PRÉSENTER PAR VOIE DE NOTE LA RÉMUNÉRATION SOUS FORME D'OPTIONS D'ACHAT D'ACTIONS : UNE ANALYSE DES JUGEMENTS ET DES DÉCISIONS DES INVESTISSEURS NON PROFESSIONNELS. *Canadian Accounting Perspectives* 5:2, 147-179. [[Crossref](#)]
329. Hugo Nurnberg. 2006. The distorting effects of acquisitions and dispositions on net operating cash flow. *Accounting Forum* 30:3, 209-226. [[Crossref](#)]
330. Jesper Rangvid. 2006. Output and expected returns. *Journal of Financial Economics* 81:3, 595-624. [[Crossref](#)]
331. Brian G. M. Main. 2006. The ABI guidelines for share-based incentive schemes: setting the hurdle too high?. *Accounting and Business Research* 36:3, 191-205. [[Crossref](#)]
332. Ann Pomeroy, Gundars Kaupins. 2006. Whistleblowing: When It Works—and Why Whistleblowing: When It Works—and Why By Ann JohnsonRoberta, Boulder, Colorado: Lynne Rienner Publishers, 2002. 171 pages, paperback, \$18.95. *Academy of Management Perspectives* 20:3, 128-130. [[Crossref](#)]
333. Takao Kato, Cheryl Long. 2006. Executive Compensation, Firm Performance, and Corporate Governance in China: Evidence from Firms Listed in the Shanghai and Shenzhen Stock Exchanges. *Economic Development and Cultural Change* 54:4, 945-983. [[Crossref](#)]
334. DEREK C. JONES, PANU KALMI, MIKKO MAKINEN. 2006. The Determinants of Stock Option Compensation: Evidence from Finland. *Industrial Relations* 45:3, 437-468. [[Crossref](#)]
335. A. Louis Calvet, Abdul H. Rahman. 2006. The Subjective Valuation of Indexed Stock Options and Their Incentive Effects. *The Financial Review* 41:2, 205-227. [[Crossref](#)]
336. Sanjay Deshmukh, Keith M. Howe, Carl Luft. 2006. Executive Stock Options: To Expense or Not?. *Financial Management* 35:1, 87-106. [[Crossref](#)]
337. Kapil Sharma. 2006. Understanding Employee Stock Options. *Global Business Review* 7:1, 77-93. [[Crossref](#)]
338. Larry C. Holland, Erick M. Elder. 2006. Employee stock options in compensation agreements: A financing explanation. *Journal of Corporate Finance* 12:2, 367-379. [[Crossref](#)]
339. Mihir A. Desai, Dhammika Dharmapala. 2006. Corporate tax avoidance and high-powered incentives. *Journal of Financial Economics* 79:1, 145-179. [[Crossref](#)]
340. David O'Donnell, Mairead Tracey, Lars Bo Henriksen, Nick Bontis, Peter Cleary, Tom Kennedy, Philip O'Regan. 2006. On the "essential condition" of intellectual capital: labour!. *Journal of Intellectual Capital* 7:1, 111-128. [[Crossref](#)]
341. Allen Kaufman, Ernie Englander, Christopher L. Tucci. 2006. The Managerial Thesis Revised: Independent Directors and the CEO 'Directorate'. *SSRN Electronic Journal* . [[Crossref](#)]

342. Sandra Renfro Callaghan, Mary Harris Stanford, Chandra Subramaniam. 2006. Do Broad-Based Option Compensation Plans Improve Future Firm Performance for Technology and Non-Technology Firms?. *SSRN Electronic Journal* . [[Crossref](#)]
343. Xavier Gabaix, Augustin Landier. 2006. Why Has CEO Pay Increased So Much?. *SSRN Electronic Journal* . [[Crossref](#)]
344. James Jianxin Gong. 2006. Financial Reporting Concerns, Framing Effects and Employee Stock Option Grants. *SSRN Electronic Journal* . [[Crossref](#)]
345. Kuntara Pukthuanthong, Thomas Walker. 2006. On the pros and cons of employee stock options: What are the alternatives?. *Corporate Ownership and Control* 4:1, 266-283. [[Crossref](#)]
346. Ella Mae Matsumura, Jae Yong Shin. 2005. Corporate Governance Reform and CEO Compensation: Intended and Unintended Consequences. *Journal of Business Ethics* 62:2, 101-113. [[Crossref](#)]
347. Anil Arya, Brian Mittendorf. 2005. Offering stock options to gauge managerial talent. *Journal of Accounting and Economics* 40:1-3, 189-210. [[Crossref](#)]
348. Michael Rubach, Armand Picou. 2005. The enactment of corporate governance guidelines: an empirical examination. *Corporate Governance: The international journal of business in society* 5:5, 30-38. [[Crossref](#)]
349. Andres Almazan, Jay C. Hartzell, Laura T. Starks. 2005. Active Institutional Shareholders and Costs of Monitoring: Evidence from Executive Compensation. *Financial Management* 34:4, 5-34. [[Crossref](#)]
350. Richard T. Holden. 2005. The Original Management Incentive Schemes. *Journal of Economic Perspectives* 19:4, 135-144. [[Abstract](#)] [[View PDF article](#)] [[PDF with links](#)]
351. PHELM BOYLE, WEIDONG TIAN. 2005. EXECUTIVE STOCK OPTIONS: A FIRM VALUE APPROACH. *Journal of Derivatives Accounting* 02:02, 189-201. [[Crossref](#)]
352. Claudio Michelacci, Vincenzo Quadrini. 2005. Borrowing from Employees: Wage Dynamics with Financial Constraints. *Journal of the European Economic Association* 3:2-3, 360-369. [[Crossref](#)]
353. Alfred Rappaport. 2005. The Economics of Short-Term Performance Obsession. *Financial Analysts Journal* 61:3, 65-79. [[Crossref](#)]
354. Paul Oyer, Scott Schaefer. 2005. Why do some firms give stock options to all employees?: An empirical examination of alternative theories. *Journal of Financial Economics* 76:1, 99-133. [[Crossref](#)]
355. Radu Vranceanu. 2005. Financial Architecture and Manager Dishonesty: Lessons from US Corporate Scandals. *Acta Oeconomica* 55:1, 1-22. [[Crossref](#)]
356. Lukas Junker. References 367-445. [[Crossref](#)]
357. Woochan Kim, Takao Kato, Ju-Ho Lee. 2005. Executive Compensation, Firm Performance and Chaebols in Korea: Evidence from New Panel Data. *SSRN Electronic Journal* . [[Crossref](#)]
358. John R. M. Hand. 2005. Give Everyone a Prize? Employee Stock Options in Private Venture-backed Firms. *SSRN Electronic Journal* . [[Crossref](#)]
359. David B. Farber, Marilyn F. Johnson, Kathy R. Petroni. 2005. The Influence of Corporate PACs on Accounting Standard Setting: The Case of the Stock Option Accounting Reform Act. *SSRN Electronic Journal* . [[Crossref](#)]
360. Lucian Arye Bebchuk, Yaniv Grinstein. 2005. The Growth of Executive Pay. *SSRN Electronic Journal* . [[Crossref](#)]
361. Anup Srivastava. 2005. Earnings Management Choices When Stock-Option Incentives Conflict*. *SSRN Electronic Journal* . [[Crossref](#)]
362. Wayne R. Landsman, Mark H. Lang, Shu Yeh. 2005. Governance and the Split of Options between Executive and Non-Executive Employees. *SSRN Electronic Journal* . [[Crossref](#)]

363. Paul Oyer, Scott Schaefer. 2005. Accounting, Governance, and Broad-Based Stock Option Grants. *SSRN Electronic Journal* . [\[Crossref\]](#)
364. Christopher Adams. 2005. Moral Hazard, Time Preferences and Stock Options. *SSRN Electronic Journal* . [\[Crossref\]](#)
365. David O'Donnell, Mairead Tracey, Lars Bo Henriksen, Peter Cleary, Nick Bontis, Tom Kennedy, Philip O'Regan. 2005. On the 'Essential Condition' of Intellectual Capital: Labour!. *SSRN Electronic Journal* . [\[Crossref\]](#)
366. Robert F. Göx. 2005. Tax Incentives for Inefficient Executive Pay and Reward for Luck. *SSRN Electronic Journal* . [\[Crossref\]](#)
367. Michael C. I. Nwogugu. 2005. Equity-Based Incentives: Wealth Transfers, Disruption Costs and New Models. *SSRN Electronic Journal* . [\[Crossref\]](#)
368. Rashid Bahar. 2005. Executive Compensation: Is Disclosure Enough?. *SSRN Electronic Journal* . [\[Crossref\]](#)
369. Haijin Lin. 2005. Accounting Discretion and Managerial Conservatism: An Intertemporal Analysis. *SSRN Electronic Journal* . [\[Crossref\]](#)
370. Courtney H. Edwards. 2005. Do Employee Stock Options Encourage Corporate Tax Sheltering?. *SSRN Electronic Journal* . [\[Crossref\]](#)
371. Ernie Englander, Allen Kaufman. 2004. The End of Managerial Ideology: From Corporate Social Responsibility to Corporate Social Indifference. *Enterprise & Society* 5:3, 404-450. [\[Crossref\]](#)
372. Marco J. Menichetti. Accustomed Swiss Thoroughness and Accuracy in Executive Stock Option Programs? 249-265. [\[Crossref\]](#)
373. EDWARD ALTMAN, GEORGE BENSTON, GERALD BIERWAG, MARSHALL BLUME, RICHARD BREALEY, WILLARD CARLETON, ANDREW CHEN, ELROY DIMSON, FRANKLIN EDWARDS, ROBERT EISENBEIS, WAYNE FERNON, MARK FLANNERY, CHARLES GOODHART, NILS HAKANSSON, KOSE JOHN, EDWARD KANE, GEORGE KAUFMAN, RICHARD HERRING, ALAN KRAUS, DENNIS LOGUE, STEWART MYERS, STEPHEN SCHAEFER, EDUARDO SCHWARTZ, KENNETH SCOTT, LEMMA SENBET, WILLIAM SHARPE, JEREMY SIEGEL, SEYMOUR SMIDT, MARTI SUBRAHMANYAM, JAMES VAN HORNE, INGO WALTER, RICHARD WEST, J. FRED WESTON. 2004. The Controversy Over Executive Compensation. *Journal of Applied Corporate Finance* 16:1, 108-111. [\[Crossref\]](#)
374. Paul Oyer, Scott Schaefer. 2004. Compensating Employees Below the Executive Ranks: A Comparison of Options, Restricted Stock, and Cash. *SSRN Electronic Journal* . [\[Crossref\]](#)
375. Christopher Adams. 2004. Is It Always Optimal to Sell the Firm to a Risk-Neutral Agent?. *SSRN Electronic Journal* . [\[Crossref\]](#)
376. Mihir A. Desai, Dhammika Dharmapala. 2004. Corporate Tax Avoidance and High Powered Incentives. *SSRN Electronic Journal* . [\[Crossref\]](#)
377. Robert Dur, Amihai Glazer. 2004. Optimal Incentive Contracts when Workers Envy their Boss. *SSRN Electronic Journal* . [\[Crossref\]](#)
378. Daniel B. Bergstresser, Mihir A. Desai, Joshua Rauh. 2004. Earnings Manipulation, Pension Assumptions and Managerial Investment Decisions. *SSRN Electronic Journal* . [\[Crossref\]](#)
379. Takao Kato, Cheryl X. Long. 2004. Executive Compensation, Firm Performance, and Corporate Governance in China: Evidence from Firms Listed in the Shanghai and Shenzhen Stock Exchanges. *SSRN Electronic Journal* . [\[Crossref\]](#)
380. Chongwoo Choe, Xiangkang Yin. 2004. Should Executive Stock Options be Abandoned?. *SSRN Electronic Journal* . [\[Crossref\]](#)

- 381. Hiroshi Osano. 2004. Stock-Based Compensation in Teams. *SSRN Electronic Journal* . [[Crossref](#)]
- 382. Roman Inderst, Holger M. Mueller. 2004. Benefits of Broad-Based Option Pay. *SSRN Electronic Journal* . [[Crossref](#)]
- 383. Christoph Kaserer, Niklas F. Wagner. 2004. Executive Pay, Free Float, and Firm Performance: Evidence from Germany. *SSRN Electronic Journal* . [[Crossref](#)]
- 384. Lucian Arye Bebchuk, Jesse M. Fried. 2003. Executive Compensation as an Agency Problem. *SSRN Electronic Journal* . [[Crossref](#)]
- 385. Danielle Blanchard, Georges Dionne. 2003. Risk Management and Corporate Governance. *SSRN Electronic Journal* . [[Crossref](#)]
- 386. Paul Oyer, Scott Schaefer. 2003. A Comparison of Options, Restricted Stock, and Cash for Employee Compensation. *SSRN Electronic Journal* . [[Crossref](#)]
- 387. Ingolf Dittmann, Ernst G. Maug. 2003. Lower Salaries and No Options? On the Optimal Structure of Executive Pay. *SSRN Electronic Journal* . [[Crossref](#)]
- 388. Stephen A. Hillegeist, Fernando Penalva. 2003. Stock Option Incentives and Firm Performance. *SSRN Electronic Journal* . [[Crossref](#)]