2001

Puzzling Stock Options and Compensation Norms

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Why do so many executives and other employees receive fixed stock options as part of their compensation packages? Even though there is an impressive literature on compensatory options, it raises more puzzles than it solves. Tax law, option theory, and agency theory all suggest that we might have expected to find quite different practices than we observe. In particular, there is a puzzle in the popularity of conventional fixed options when indexed options would seem to be relatively attractive. The solution or story offered here develops arguments about signaling; employees will not want to be seen as preferring cash over options in their own employer’s future. It relies on the idea that indexed options encourage more risk alteration, or inefficient differentiation, than other forms of compensation and it introduces the notion that there is something of a norm in favor of nonconflicting fortunes within a community. The norm part of the argument says something about the more general norm of privacy with respect to money matters and it illuminates the occasional practice of confidentiality regarding one’s own compensation. This practice might be stable because of the negative signals emitted by defectors. The same analysis might help explain why stock option practices are somewhat sticky.

INTRODUCTION

This Article is in part about a puzzle associated with stock options and employee compensation. Many firms, and virtually all firms in certain industries, use stock options to form a significant part of the compensation they pay their more highly compensated employees. These options could take many forms, but there is remarkable conformity in the practice of giving a class of employees a large percentage of compensation (in expected value terms) in the form of options with strike prices set at or slightly above the underlying stock’s market value at the time the options are granted. Moreover, this compensation practice has grown in popularity. It is associated with start-ups, especially with respect to granting options even to nonmanagerial employees, but it has grown to include a majority of traded firms and

† William B. Graham Professor of Law, University of Chicago. This Article was prepared for the University of Pennsylvania Law School Symposium on Norms and Corporate Law held in December 2000. I am grateful for excellent suggestions received there, as well as from Katherine Eldred, David Schizer, Henry Smith, and George Triantis.
many employees who, individually, would seem to have only remote influence on firm profits or share prices.\(^1\)

Criticism of this expansion of compensatory options has largely focused on the market value of these options and the frequent reissue or revision of options when these options become nearly worthless because of declines in share prices for the market as a whole or even for the employer-firm.\(^2\) Revisions are defended as necessary to recreate the incentives and alignment of interests that were present before these options dropped underwater. But critics fear that agents are somehow overpaying themselves with options in a way that they could not with straight compensation. Part I takes prevailing practices and criticisms as its starting point, comparing conventional stock options to bonus plans and to indexed options. The discussion pays particular attention to risk and to tax law. Something of a puzzle emerges as to

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\(^{2}\) Some of the newer criticism is more closely related to the tack taken here, as it questions the conventional wisdom that fixed options are tax favored. See, e.g., Calvin H. Johnson, Stock Compensation: The Most Expensive Way To Pay Future Cash, 85 TAX NOTES 351 (1999) (arguing that stock compensation typically is more expensive than debt or deferred compensation); Merton H. Miller, The Case for Expensing Stock Options Against Earnings, J. APPLIED CORP. FIN., Summer 1994, at 88 (discussing the tax implications of accounting rules on stock options); James R. Repetti, The Misuse of Tax Incentives To Align Management-Shareholder Interests, 19 CARDOZO L. REV. 697 (1997) (arguing that tax provisions permit stock options to create corporate imbalances between management and shareholders). But see Kevin Wiggins, Capital Gain v. Ordinary Income and the FICA Tax Treatment of Employee Stock Purchase Plans, 53 TAX LAW. 703 (2000) (arguing that despite FSA 1999-26034's drastic changes as to how amounts received under an employee stock purchase plan should be treated for FICA purposes, only the employer-provided discount, and not the entire option gain, is to be subject to FICA).

On the agency problem relationship, see Don M. Chance et al., The 'Repricing' of Executive Stock Options, 57 J. FIN. ECON. 129 (2000), arguing that repricing is more likely to occur in firms of smaller size, with greater agency problems, and with insider-dominated boards. Finally, for a legal perspective on revisions, see Eric J. Wittenberg, Underwater Stock Options: What's a Board of Directors To Do?, 38 AM. U. L. REV. 75 (1998) addressing the legal considerations a board must weigh in deciding to rescind old options and issue new options at a discount from the current market price.
why conventional compensatory options are so popular. I refer to this as the "stock option puzzle."

Part II develops the idea that conventional practice may be explained with a combination of considerations. I describe one of these as "super-risk alteration" and another as something of a norm regarding the "nonconflicting fortunes" among similarly situated employees, or within other communities. These ideas play important roles in part because employees are, quite understandably, not compensated with instruments that extract payments from them when the firm does relatively poorly. A third consideration is signaling. At several points in the analysis, it appears that employees would have trouble bargaining away from prevailing practices because to do so might send an unpleasant signal that is wisely avoided.

Part III suggests that the norms portion of the argument is more plausible than it first seems because a similar norm regarding nonconflicting fortunes can be found in other settings. I do not insist that the norms label is critical to the larger explanation regarding compensation practices. It is possible that the work done by the norms argument could be rendered by a related claim about potential efficiency costs in the face of conflicts among employees. But the norms label does provide some purchase, and the focus, in any event, is on the larger task of explaining the popularity of conventional stock options. Moreover, compensation practices seem somewhat sticky and might, therefore, themselves be understood as constituting or reflecting various norms.

I. THE STOCK OPTION PUZZLE

A. Incentive-Compatible Alternatives

1. Compensatory Stock Options and Bonus Plans

If there is a puzzle about options, it is in the details rather than the overall abstraction. The abstract idea is simply to provide employees, and especially high-level managers, with compensation packages that mitigate agency costs. Managers who receive straightforward, unadorned salaries might do what pleases shareholders who hold residual equity claims, if only because managers care about their reputations, pay increases, or other issues. But it is easy to see why shareholders might prefer that compensation track performance more directly, and one way to do this is to tie employee well-being to the firm's share price. The idea is to motivate managers with some-
thing less than a one-period lag. Of course, managers might make themselves attractive by bonding themselves through compensation packages that rise and fall with shareholder value. Incentive-compatible compensation offers, or ideas, might originate on either side of the employment bargain.

There are, of course, many ways to align managerial well-being with shareholders' (or all investors') goals. This is hardly the place for a review of all such alternatives or for a catalogue of the advantages and pitfalls of each. But it is useful to visit some obvious alternatives.

Employees of all stripes might be promised bonuses, perhaps at year's end, based loosely or tightly on the firm's profits or the employees' individual performances, defined and measured one way or another. Some bonuses, including those paid at many law firms, are neither specified nor guaranteed in advance, in which case a bonus is much like a raise—except that the employee can choose to depart immediately after the bonus is paid and the bonus does not become part of the employee's base salary for the purpose of future raises and benefits. In some settings these bonuses might be better thought of as liquidated damages aimed at preventing disruptive departures, but there is nothing terribly remarkable about slightly uncertain ex post rewards.\(^3\)

\(^3\) In some settings, paying compensation on a daily basis solves more problems than it creates, but in other settings, disruption can be managed by withholding some compensation.

It is tempting to dwell also on commissions, which can be thought of as a form of bonus. Commissions are simply compensation that is linked to sales or other outputs thought to be in the individual's control, though they can often be seen as a subtle form of profit-sharing. But commissions—at least as the (nonlegal) term is normally used—are more incremental than are bonuses (which are sometimes all or nothing in character) and they are often committed to by contract while bonuses are often discretionary on the employer's part. I have discussed commissions elsewhere, and I resist the temptation to say more here. For the present, the idea is simply that almost anything that can be done with popular, fixed compensatory options can be accomplished at least as well with well-designed bonuses and commissions. And there are some things that are far easier to do with bonuses, including the design of individualized incentives.

To be sure, bonuses and commissions are very popular. Even without good data, one can surmise that more employees receive income in the form of bonuses and commissions than in the form of stock options. An optimist might say that we find commissions for low-level employees where monitoring is best accomplished in terms of some output. Bonuses might require more tailoring, and we find these for mid-level employees. They might be linked to a division's profits or loosely linked to hours worked and the firm's overall profitability. Finally, stock options can be seen as bonuses for high-level employees whose efforts affect the entire firm and therefore the stock price. For a more complete (and optimistic) description, including some discus-
As compared with common stock options, an interesting thing about typical end-of-period bonuses—and even, perhaps, voluntary severance payments made to employees—is that they can be individualized even as they are linked to firm performance. A given employee is likely to perceive that her end-of-year bonus is very sensitive not only to the firm's overall profits, but also to a supervisor's or committee's perception of her individual performance during the preceding year. Even if the employee reasons that the true aim of the bonus is to discourage exit and to encourage hard work in the coming year, there is likely to be a strong correlation between the strength of these managerial sentiments and the individual's performance in the completed year.

Stock options can be designed to be close substitutes for these conventional bonuses. Employees simply might not know in advance how many options they will receive at the end of a period, or, for that matter, what the exercise price will be. The exercise price and duration probably need to be set by the employer at the start of the period, so that employees will see that hard work and firm success during the period raises the expected value of their options. The number of options each employee receives—whether individualized or not—can in principle be determined at the end of the period based on the employee's performance. Employees might then be made indifferent between conventional bonuses and stock options. Both are expected to rise with the value of the firm, and both can be individually tailored.

See Edward B. Rock & Michael L. Wachter, Tailored Claims and Governance: The Fit Between Employees and Shareholders, in EMPLOYEES AND CORPORATE GOVERNANCE 121, 130-33 (Margaret M. Blair & Mark J. Roe eds., 1999). But there are many counterexamples to this three-part division. A more pessimistic or puzzling perspective is to wonder why compensatory options emerged when well-designed bonuses could do all the necessary work. The text goes on to emphasize the advantage—and relative scarcity—of indexed options, which would appear to be more incentive-compatible than conventional fixed options; the latter reward employees for gains they could not have produced and lose their incentive feature when share prices drop, so that the already-granted options are "out of the money" and incapable of influencing future work effort. Indexed options, like conventional options, generally start out with a specified time period of, say, three to ten years during which the holder can buy the underlying stock at the specified exercise price, which is normally set at the market price at the date of grant. Exercise might be limited to employees who remain with the firm and in any event the options are usually nontransferable or somewhat restricted. The options are, of course, more valuable the longer the option period and the more volatile the underlying stock. With indexed options, the exercise price normally varies with a benchmark such as the S&P 500 or a basket of stocks in the issuing firm's own industry. The idea is to reward the employee when the firm does relatively well (even if the firm's stock price had dropped in absolute terms).
with something of an ex post component, if so desired.

These not quite conventional stock options—and others as well—may be inferior to bonuses from both employer and employee perspectives because of the risk that in the course of the period in question the price of the firm’s stock will fall. The straightforward case is when there is a widespread drop in the stock market, so that the decrease in the expected value of an option could not have been prevented by better performance on the part of the employee or even by the particular firm as a whole. The same is true if only this firm’s price falls, but for reasons unremediable by our targeted employee. The problem is interesting in part because it is asymmetric. If the market as a whole rises, the employee still knows that on the margin (assuming the employee can affect the firm’s stock market price through hard work and so forth) this firm’s value will rise more than average. But if the market drops, and the options are well “out of the money,” then employer and employee will realize that there is no longer any incentive function served by the options or promise of options. Even the hardest working employee will not bring the share price into the range that was expected at the time the options were granted or written. The risk of such drops might be offset by the grant of more options in the first place, a topic discussed below in Part II.C, but the incentive effect is more stubborn.

A related problem accompanying downward market movements concerns the logistics of pay periods. For a variety of well-known reasons, relating both to practicalities and strategic behavior, employee compensation is unlikely to depend on the successful completion of a long period of employment; salaries are likely to be paid in monthly or even more frequent installments, and in the event of departures or terminations they may even be pro-rated on a daily basis. The same will be true of the options component of the compensation package. Thus, if there is a steep decline in stock prices, then our illustrative employee will feel undercompensated unless the number of options or their exercise price is constantly adjusted. The employee who was promised $X in salary plus $Y in (the expected value of) options per month might otherwise find offers from competing firms more attractive because these competing offers will take current market prices into account.

In fact, firms that use options to fill a significant part of the compensation package sometimes distribute new options with different conditions, the most obvious being a lower exercise price, after such a fall in the market or even a fall in the lone firm’s share price. Critics
might say that this shortchanges nonemployee investors. One form of
the critical claim is that the firm can hardly win; the original compen-
sation package is set with some expectation about market prices. If
the market rises more than expected (apart from gain attributable to
the relevant employees), the employee enjoys a windfall, and if the
market drops, or rises less than expected, the employee simply re-
ceives new or revised options. Superficially, this looks too good for
the employees.

Even when the firm will not issue new options or revise existing
options when the shares drop in value, the firm can be seen as giving
away something for nothing in a rising market. But since this may be
offset by the employee’s loss in a falling market, I prefer the first ver-
sion of the criticism. One way or another, a reasonable claim exists
that these options, or more specifically their exercise prices, should be
indexed to the market as a whole or perhaps to the industry in which
the firm competes.¹

It is possible that when markets fall, the employer’s ability to revise
conventional options terms is a valuable tool. The employer can cut
wages (which are otherwise thought to be inefficiently sticky) in this
manner, by not revising or resetting the options. Similarly, employees
might choose to depart, and the employer would not want them
locked in because of expectations about their options. At the very
least, these possibilities suggest the superiority of conventional options
over many bonus plans. In fact, bonus plans can easily cause employ-
ees to overstay, which may create problems and even litigation for
employers who wish to lay off employees before their bonuses vest. I
will not draw more optimistic conclusions about the value of—rather
than the problem with—conventional options in downturns, if only
because it is unclear who really decides whether to revise options in
downturns.

In theory, many arguments of the sort just advanced can be par-
ried with some claim about well-functioning markets or rational ex-
pectations. If, for example, it is true that there is an asymmetry with
regard to the consequences of market fluctuations for these options,
then employers and employees will perceive this in advance and em-
ployers will need to pay lower salaries (or promise fewer or simply less-
valuable options) in the first place. Everyone can assess the contin-
gent value of the options (and replacement options) because market

¹ The argument is often traced to Bengt Holmström, Moral Hazard and Observabil-
ity, 10 BELL J. ECON. 74, 82-83 (1979).

fluctuations can be quantified and the probability that the employer will feel compelled to revise or reissue options can be estimated.

One response to this reaction—that stock options are unlikely to be too generous (unless all compensation is too generous) because there is room for adjustment in other components of the compensation package—is, of course, to insist that markets are unlikely to work so well. It is particularly hard to estimate the likelihood that new incentives will be handed out in a declining market. Nor are stock options the only tool that can be described as incentive-compatible, while actually used to transfer wealth from shareholders to executives in a form that is difficult to evaluate and monitor. Agents could use bonus plans and commissions to hoodwink their unsophisticated principals. Indeed, these may be even harder to measure—though perhaps not as easy to revise in the agents’ favor in midstream.

2. Fixed Versus Indexed Options and Accounting Standards

A more interesting reaction to the claim that stock options, and even their midstream revisions, do more than simply allow agents to fool and take from their principals, returns us to the question of indexed options. Why are stock options rarely indexed to market (or industry) prices? As already suggested, this sort of indexing would seem to be efficient because it would maintain incentives for the relevant employees even when stock prices fall for reasons beyond their control. Even the most sophisticated commentators gravitate toward an explanation that focuses on accounting rules—and therefore on an idea that is inconsistent with an assumption of well-working markets with well-informed players. Other notable commentators regard compensatory options as a means of rent extraction by insufficiently

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6 See generally Mark A. Clawson & Thomas C. Klein, Indexed Stock Options: A Proposal for Compensation Commensurate with Performance, 3 STAN. J.L. BUS. & FIN. 31, 50 (1997) ("Corporate boards should consider... the advantages of adopting indexed options, in order to avoid charges that the executive compensation packages they approve are irrational.").

7 See, e.g., Miller, supra note 2, at 88-89 ("The arbitrary difference between the accounting for stock options and for alternative forms of compensation produces... bizarre results."); Alfred Rappaport, Misplaced Concerns About Indexed Options, HARV. BUS. REV., Mar.-Apr. 1999, at 91, 94 (arguing that corporate concerns over the use of indexed options is misplaced).
disciplined managers. Under current accounting standards, a firm that uses conventional, fixed options reports (to shareholders and the public, as opposed to the tax authorities) compensation expenses measured on the first date that both the number of shares optioned and the option exercise price are known. The expense calculation is then based on the compensatory value of the stock options, but this only consists of any spread by which the quoted market price of the optioned stock exceeds the option's exercise price. In short, the time value of the option is essentially ignored.

For example, imagine that an option to purchase 1000 shares on any date up to January 1, 2002, at an exercise price of 20, is promised to an employee on January 1, 1997, when the share's market price is 20. Imagine that the option is exercised in 2001, when the stock price is 30. In 1997 the firm reports no expense associated with this part of the compensation package because the spread is 0 on January 1, 1997, when both the number of shares optioned and the exercise price are known. A firm influenced by accounting conventions may therefore be disinclined to set the exercise price below the market value at the time of the grant. Nor is there anything to report some four years later when the option is exercised. We might think of the firm as reporting a cost of 0 in 2001 because its "cost" is seen as 20 (inasmuch as it could have sold this stock to the public for 20 at the time it was "promised" to the employee), but it has received 20 because of the exercise price. Had the exercise price been 15, the firm would have reported a cost of 5000 in 1997.

There is, of course, value given to the employee with this option, and this is greater the more volatile the share price and the longer the term. The value of this option could therefore be calculated, but the firm need not do so—except that, beginning in 1995, accounting standards required the firm to disclose in a footnote what impact the options would have had on net income and on earnings per share if the accounting rules had required a "fair value" method that would have taken this time value into account. The footnote thus reports

8 See Bebchuk & Walker, supra note 5.
10 ACCOUNTING FOR STOCK-BASED COMPENSATION, Statement of Financial Ac-
not some measure of the value to the recipient, but rather one measure of the opportunity cost to the employer. An alternative might have been the market value of the options or even the compensation costs likely "saved" because of the grant of the incentive-compatible option, which would require some assumptions about the cost of imposing risk on the option holder.

In contrast, if the option is indexed so that the exercise price rises and falls with a market basket, for instance, then the exercise price is not known on January 1, 1997, but is only known upon exercise. At that time the firm will need to report its cost based on the spread. In our example, when the options are exercised in year 2001, the firm will now "know" that the cost to it was (30-20) x 1000, or 10,000.

The claim, as is now obvious, is that the parties shy away from indexed, or other variable, options because they must report greater expenses and then show smaller profits than they do if they deploy conventional fixed options. Fixed options allow the firm to avoid reporting the cost of the time value portion of the option, although the footnote requires a different ex ante cost estimate. Nor is an ex post expense reporting required regardless of the actual dilution brought about by exercise. Indeed, the firm can substitute fixed options for cash compensation not only to generate hard work on the employee's part but also to avoid the appearance of expenses.11

Variable compensatory options do require an accounting for their time value (and cost) in ex post fashion by awaiting exercise. The firm will not, on average, look better by substituting variable options for salary, though the incentives offered by these options may make them attractive. The ex ante fair value method, required at most at the level of footnotes, asks the firm to report both salaries and option values up front. If indexed options seem to dominate fixed options as a matter of incentive compatibility, but we find that fixed options actually dominate (as they do), then we might explain the apparent

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11 The argument could also be extended to revisions in the event of downturns. When compensatory options are underwater and the employer resets the exercise price, it is arguable that the employer prefers to do this rather than to offer other bonuses for future performance because only the revision alternative escapes recordation as an expense. There is, however, a proposal to reclassify these options as variable rather than fixed if the exercise price is reset. See ACCOUNTING FOR STOCK ISSUED TO EMPLOYEES, Accounting Principles Board Opinion No. 25 (Accounting Principles Bd. 1972); ACCOUNTING FOR STOCK-BASED COMPENSATION, Statement of Financial Accounting Standards No. 123 (Financial Accounting Standards Bd. 1995).
puzzle with the observation about accounting rules. Firms appear to benefit by "hiding" the true cost of compensating their employees.

There are other examples of putative explanations in corporate law and in finance that depend on accounting rules—and therefore to a degree on the belief that investors are easily fooled. Fully informed, rational investors would see the benefit of indexed options, if any, and would realize that, despite the accounting convention associated with traditional options, there is a formidable cost associated with selling shares at the exercise price when they could be sold elsewhere for more (or when they need not be sold at all, in which case existing equity owners would share profits fewer ways). In short, the prevailing explanation for the use of conventional rather than indexed compensatory options depends on a substantial degree of investor ignorance. This, in turn, makes it difficult to argue that we should not be concerned when options are readily revised in bear markets. Even if these revisions or reissues are rationally expected so that the employer gives less value up front in conventional options, there is a puzzle in the uncertainty when more straightforward indexed options and bonuses are available.

We might turn now to a different explanation for conventional options. But the puzzle is made more clear, and is perhaps deepened, by first exploring taxes and risk aversion.

B. Taxes and the Options Puzzle

One can imagine a tax code that unambiguously encourages stock options. Strong enough encouragement for fixed options, or for any other form of compensation, can surely explain a preference by actual taxpayers for the form in question. The discussion thus far has considered the relative attraction of indexed options in a tax-neutral world.

Imagine, for instance, that employers could deduct not only the cost of cash compensation but also the current value of stock options granted to employees. And imagine that employees were not taxed

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12 Note that I am not disputing the idea that, given fixed compensatory options, there will be occasions when it is sensible to revise or reset them. See Viral A. Acharya et al., On the Optimality of Resetting Executive Stock Options, 57 J. FIN. ECON. 65 (2000). These authors also review some of the criticism of revision. Id. at 66.

13 Accounting standards would, of course, require reporting the costs of these bonuses. See Paul M. Healy, The Effect of Bonus Schemes on Accounting Disclosure, 7 J. ACCT. & ECON. 85, 106 (1985) (analyzing the format of typical bonus contracts and their accounting incentive effects).
on this sort of compensation until (and only if) the options were exercised in order to ascertain their value to the employee (who might, for example, need to wait for some contingencies before the options vested). Similarly, employees might defer tax until they sell the underlying stock. In these cases there would be a substantial mismatch between the employer's deductions and the employees' income. Therefore, it seems clear that the parties might bargain (or evolve) toward pay packages that include a good deal of this sort of currency. Tax reformers might eventually try to limit employers' deductions or seek to deny the employees open-transaction treatment, but meanwhile, we could expect to see a great deal of the tax-favored options.

Our present tax system hardly goes this far. Section 422 of the Internal Revenue Code allows an employee to receive and eventually sell qualified incentive stock options, recognizing only the capital gain on the sale, whereas compensation is normally taxed as ordinary income. The qualifications include an annual limit of $100,000 (measured in the underlying stock), a requirement that the exercise price be no less than the market price at the time of the grant, and a holding period of at least two years after the date of grant and one year after the date of exercise. The employer, however, has no deduction.

Without this last rule, compensatory options would obviously be attractive, and many observers are quick to assume that compensatory options are indeed tax-favored.

We can understand any favorable tax treatment associated with qualifying incentive options as reflecting the idea that the holding period (along with the other terms of the option) is necessary for incentive compatibility, but that it is something of an "imposition" on the employee because cash would be more attractive. The employee could always choose to invest cash in the employer's stock, and such normal stock would be perfectly alienable. We can also challenge any favorable treatment with the observation that if the employee regards incentive-compatible compensation as less attractive than ordinary income, then the market will force employers to give out more of this incentive-laden currency. The right treatment might be something in between (adjusting even for the employee's unusual risk, as discussed later), but this is sufficiently complicated that the Code tries to com-

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15 Id. § 422(d).
16 Id. § 422(b)(4).
17 Id. § 422(a)(1).
18 Id. § 421(a)(2).
promise, perhaps, with the $100,000 limitation.

In any event, the treatment associated with qualified options cannot explain why indexed options are not more popular. Even if the market price falls and the indexed exercise price drops, the options qualify because the "option price is not less than the fair market value of the stock at the time such option is granted."\textsuperscript{19}

In the case of a nonqualifying option of "readily ascertainable value," the employee has income equal to the fair market value of the options received at the time they are granted.\textsuperscript{20} If value is not readily ascertainable at grant time, which occurs generally when the stock at issue is not widely traded, the employee waits until exercise or disposition and reports the difference between receipts and cost (exercise price) at that time.\textsuperscript{21} At the time the employee has income, the employer has a deduction.\textsuperscript{22} Note that if the exercise price were lower than the market value at the time of the grant, the employee would again have income in the same amount as the employer’s deduction—even though the employer is using its own stock in which it is ordinarily treated as having no basis. Thus far these options may seem harmless in tax terms or perhaps mildly advantaged compared to cash.

It is misleading, however, to focus on putative tax advantages for the option-holding employee, when the real issue is whether or not the combined taxes of employer and employee make one form of compensation relatively attractive. Returning to qualifying incentive stock options, for example, in the event of an eventual exercise following appreciation of the underlying stock and the approaching end of the option period (including, perhaps, employee departure), the employee has capital gain rather than ordinary income—but the employer has no deduction at all. Similarly, if the employer repurchases the stock from the employee, the employee has capital gain in most cases but the employer has no deduction. Within a broad range of assumptions, this tradeoff is a poor deal in terms of tax planning.\textsuperscript{23} Compensatory options of this sort are likely to be tax disadvantaged rather than advantaged, as is commonly supposed.

In the case of nonqualifying options, the employee can be seen as taxed on the time value and volatility value of options at the time of

\textsuperscript{19} Id. § 422(b)(4).
\textsuperscript{20} 26 C.F.R. § 1.83-7(a) (2000).
\textsuperscript{21} Id. § 1.83-7(b)(2).
\textsuperscript{22} I.R.C. § 83(h).
\textsuperscript{23} See Johnson, supra note 2, at 365-67 (arguing that employee capital gain is not "optimal tax planning").
grant or exercise or disposition. There is a corresponding deduction
to the employer, but this merely duplicates the match that is available
for most employer expenses, including straight compensation. And,
to repeat, qualifying incentive stock options do offer an apparent ad-
vantage to the employee in the form of deferred capital gain, but this
advantage is easily overwhelmed by the fact that the employer has no
deduction at all. I think it is fair to conclude that, at least in most
cases, if rational well-informed players (including shareholders at
large) choose to use options to compensate certain employees, it must
be because of their incentive effects rather than any tax advantages.
By contrast, bonuses would provide deductions (as well as matching
ordinary income).

Moreover, it continues to be quite puzzling that indexed options
are not more popular. They would offer the same perceived tax ad-
vantages as conventional options—and the same more likely disadvan-
tage—and they would seem superior in terms of incentive effects.24
Put slightly differently, instead of giving an option worth $50,000 to an
employee, the employer could sell stock or equivalent options to out-
side investors, receive this money tax free (because no gain is recog-
nized on the sale of the issuer's own stock), and then pay the receipts
to the employee, perhaps in the form of a bonus or deferred compen-
sation tailored to whatever seemed appropriate as an incentive. The
employee is taxed on the whole amount at, for example, 39% but the
employer has a deduction at its marginal rate of, perhaps, 35%.

At the risk of stating the obvious, we can at least understand the
relative popularity of qualifying compensatory options, even (or espe-
cially) for low-level employees—though perhaps not un-indexed op-
tions—in Silicon Valley and other start-up hotbeds. If the employer
has no need for deductions at present, then converting employee or-
dinary income into capital gain (when, once again, there is no cost to
losing the employer's deduction) is quite attractive. Taxpaying firms
do not gain from offering secretaries qualifying stock options because
the employee's capital gain is normally more than offset by the em-
ployer's loss of the deduction. But a start-up firm with no expected
tax liability in the near future is much happier to give up deductions
in order to profit (through lower overall wage bills) from giving secre-
taries capital gain rather than ordinary income with respect to a por-

24 I set aside the possibility that conventional compensatory options help with con-
traction in the event of downturns, and note that well-designed bonuses could do the
same.
tion of their compensation packages.  

Calvin Johnson goes much further.  He would have us recognize the superior performance of equity over debt, and then have us confess that firms that use stock as compensation are essentially choosing the most expensive way of paying future cash. They are giving up shares that on average will prove very valuable. He therefore finds the use of compensatory options to be startling and absurd. I do not subscribe to this view, though my reasons do require some reliance on a belief in well-functioning markets. And my purpose here does not, in any event, require association with all of the Johnson view. It is enough to see that tax law is unlikely to explain employers’ taste for conventional stock options as a means of paying compensation. That tax law may actually raise the cost of this form of compensation simply adds to the puzzle already before us.

C. Risk Aversion and Compensatory Options  

1. Risk Premiums, Employees, and Landlords  

Compensatory options, included in pay packages in order to align incentives, can seem very expensive, especially when markets rise and the options are valued ex post. A fair amount of the finance literature understands this expense as a function of risk-averse employees. The
idea is that a firm might gain by "forcing" employees to accept pay in the form of stock options, which align the interests of employees and shareholders and encourage a more valuable firm, but employees might require much more of these options than they would in straight pay because the options force them to hold a risky, undiversified portfolio. A typical upper-level manager might find more than one-third of her compensation in this one basket, so to speak. One can even go so far as to show that insiders, who hold substantial wealth in the form of unexercised stock options with respect to their employer's stock, might sell stock (when permitted to do so or when able to avoid detection) even though they know that the firm's future is better than expected. The idea is that the gains from diversification exceed the benefits of the inside information, which is to say the knowledge that the expected value or mean return of the stock is favorable.

One implication of this perspective is that we might understand a firm's disinclination to extend compensatory options to nonmanagerial employees to reflect the point that these options would be very costly to the firm because employees of modest wealth might require especially large premiums to hold (what would amount to) extremely undiversified portfolios. This fortifies the conventional wisdom that front-line employees might be better motivated by bonuses or commissions that have something to do with their assignment than by options that reflect stock prices well beyond their influence. Of course, the general point about risk and compensatory options is that narrowly tailored bonuses might be far superior to conventional options from an executive's perspective depends on ... managerial risk aversion . . .

30 See Perry & Zenner, supra note 1, at 131 ("The option-based portion of compensation increased . . . to 35% for all firms [in the sample] in 1988.").

31 Lisa K. Meulbroek, The Efficiency of Equity-Linked Compensation: Understanding the Full Cost of Awarding Executive Stock Options 8 (2000) (unpublished manuscript, on file with author). A less exciting point is that a substantial fraction of employee-held stock options are exercised soon after they vest, at the cost of sacrificing much of their time value, but presumably to diversify away from the employer-firm. See Steven Huddart & Mark Lang, Employees Stock Options Exercises: An Empirical Analysis, 21 J. AcCT. & ECON. 5, 41-42 (1996) ("Early exercise is a pervasive phenomenon . . . Employees sacrifice a significant portion of potential value by exercising options before maturity. That fact . . . suggest[s] risk aversion is an important consideration for employees . . .").

Note that any evidence regarding options that are allowed to expire in the money might be tempered with the possibility that employer-firms bargain with their option-holding employees. The employees might receive raises or other compensation in return for allowing their options to expire and avoiding dilution of prevailing stock holdings. More generally, stock options can, by ex post agreement, be converted into bonus plans or stock appreciation rights.
from the employee's perspective, and therefore one would think that employers would regard bonuses as a less expensive means to their end.\textsuperscript{2}

I should add that where it is common for mid-level and upper-level employees to receive compensatory stock or stock options, we will always be able to explain the use of such options in compensating lower-level employees, or for that matter suppliers, including landlords. In some settings, firms might reason that employee morale will suffer if relative income diverges from some baseline. Secretaries may resent rather than support managers who earn millions of dollars from their executive stock options, and it might be thought wise to "force" options on the secretaries. The risks may not be the same for all of these employees, but some sense of shared fortune may promote a sense of community, loyalty, and hard work.\textsuperscript{3}

Stock options for landlords in lieu of straight lease payments might also incorporate something of an indexing component.\textsuperscript{4} In a place like Silicon Valley, where a typical tenant is a firm with volatile value and prospects, it is likely that other local firms rise and fall with one's tenant. Demand for real estate is likely to be highly correlated with most potential tenants' stock values. If the overall trend is believed to be upward, landlords may be more inclined to agree to long leases if they can acquire options in the local industry or, more simply, in the present tenant. We might therefore expect options-as-rent to be more common in longer leases.\textsuperscript{5} Again, however, the tenant-firm

\textsuperscript{2} No doubt some readers will intuit at every turn of the road that options are popular precisely because they transfer wealth inefficiently or unfairly or simply unnecessarily from employer to employee. Perhaps high-level employees can fool their principals with arguments about incentives and thereby acquire enormously valuable options when they could not have emerged with equivalent bonuses and the like. My inclination is to look harder for an explanation of prevailing compensation packages. Moreover, it is unclear how this pessimistic view of options and agency problems explains the dominance of conventional compensatory options over indexed options.

\textsuperscript{3} I do not put much weight on this idea here, although I do develop the shared fortune idea in a slightly different context infra in Parts II.D and III.

\textsuperscript{4} Some of these "rental" stock options appear to encourage patience on the landlord's part, because the option ends if the landlord ends the lease arrangement and brings in a new tenant. But others simply give the landlord a stake in the tenant's upside return. See Steve Daniels, Landlords To Sign on Dot.com Line, CRAIN'S CHI. BUS., Feb. 21, 2000, at 1 (describing innovation in the Chicago market and describing tenant-equity deals as commonplace in Silicon Valley); Motoko Rich, Office Landlords Take Gamble on E-Tenants, WALL ST. J., Nov. 3, 1999, at B16 ("An increasing number of landlords... are participating more directly in the risk—as well as the potential rewards—associated with these... companies.").

\textsuperscript{5} And once the transaction cost of designing these options is absorbed, we might
that uses options to pay for real estate space is losing an opportunity to enjoy tax deductions because the firm’s basis in its own stock is zero. But if this firm has no immediate tax liability, deductions are useful only in the creation of carryforward losses that will be useful down the road. In short, it is probably not surprising to find options-as-rent where there is a local volatile industry, where the tenant has no present tax liability, and where landlords (more than most employees) can diversify their portfolios. These characteristics may help form a better understanding of tenant-landlord payments than the conventional observation that start-ups are cash poor and unable to borrow, and thus forced to give out options on their futures. The real question, of course, is why employees and landlords sometimes take options rather than debt.

In the case of employees (rather than landlords or suppliers), it goes almost without saying that if compensatory options are somewhat puzzling, and part of the puzzle is their cost (because of tax considerations on the employer’s part and risk considerations on the part of the employee or other recipient), the puzzle would really be out of control if the options did not do something positive to align incentives. Thus, we should expect the options to offer a long period for exercise, or we should find contractual requirements that neither the options nor the acquired stock be sold for some time. We might also expect rules barring these option-holding employees from escaping the incentives—and the serious nondiversification costs—by fiddling on their own with other financial instruments that can offset the impact of the compensatory options themselves.

36 On this subject, and for the idea that the contractual rules might be hard to enforce, might in any event be much firmer than they are at present, and also might be reinforced by incentive-compatible tax law, see David M. Schizer, Executives and Hedging: The Fragile Legal Foundation of Incentive Compatibility, 100 COLUM. L. REV. 440 (2000). The available evidence suggests that contractual restrictions are fairly rare. See Stewart J. Schwab & Randall S. Thomas, What Do CEOs Bargain For? An Empirical Study of Key Legal Components of CEO Contracts (Apr. 3, 2001) (unpublished manuscript, on file with author) (reporting that 62 of 93 sampled contracts with CEOs discussed stock option compensation and 8 restricted sales of options, with 3 of these restricting pledging and 0 restricting hedging transactions).
2. Risk and Indexed Options

a. Risk to the Employee (and Cost to the Employer)

The focus on risk in this Part has the potential to illuminate the puzzle of why indexed compensatory options are not more popular. Accounting tricks aside, these indexed options would seem to have more bite and less waste than conventional options (though perhaps they are not superior in this regard to well-drafted bonuses) in the quest for incentive-compatible compensation. But now we have the added notion that it is expensive for employers to impose risky options on employees. The employers do so, the argument goes, to create incentives, but they must increase overall pay in order to compensate their employees for the additional risk the employees bear as a result of the incentive-compatible options. The employees value these options far less than the market because other market participants can hold more diversified portfolios. For these employees, a serious incentive amounts to a much larger position in the firm than an outsider with equivalent wealth would take.

With this in mind, perhaps we can explain the scarcity of indexed options with the claim that indexed options would impose even more risk on employees, so that an employer who sought to use indexed options of equivalent value for incentive reasons would need to transfer even more value to the employees as compensation for the risk imposed upon them. Apparently, or so the novel argument might go, this additional compensation is not worth the added incentive.

The idea is plausible and depends on an employer-firm’s volatility, its beta (which is to say, correlation with the risk of the stock market as a whole), and the likelihood and character of revisions of conventional options in downturns. One can imagine a conventional option that is in the money for the employee in a state of the world in which the firm does well while the market does well. For illustrative (non-technical) purposes, we might think of the employee as estimating that this will occur one in three times. But an indexed option requires that the firm does better than the benchmark, which this example takes to be the market as a whole. It is true that if we hold constant the share of compensation filled by options, the indexed option will need to cover many more shares than the fixed option. But these numerous options might only be in the money perhaps one in eight times. If the employee and the employer are hoping for the tax treatment associated with qualified options, perhaps because the employer has no present tax liability, then the employee must hold the
options and the stock for some time. This required holding period means that even if the firm's fortunes and the market's swings are such that at various points the options are in the money, the chance that they will be by the time the required holding period ends is lower. It is possible, then, that the indexed options look much riskier than apparently equivalent conventional options. In turn, the firm will need to give more of them, or to give more straight salary than otherwise required in a well-functioning market.

If this claim holds, we will have come a long way toward solving the puzzle of the relative popularity of conventional compensatory fixed options over their seemingly superior cousins, indexed options. Indeed, we may in passing have also explained the dominance of conventional options over bonuses inasmuch as the best-tailored bonuses for incentive purposes may be a great deal like indexed options. The more the employer promises large bonuses based on many things going well, the more risk there is to the employee. Even conventional commissions can be quite risky for the best salesperson—sales may be poor because of economic conditions or because the firm's product is inferior and so forth. Most incentive-compatible pieces of compensation add risk for the employee, and the employer will need to pay the employee more in order to gain agreement (or attract employees).

Readers familiar with the finance literature will have already recognized some flaws in this argument, or at least some offsetting considerations. One reason to think that indexed options do not raise the employer's cost to prohibitive levels is that, because these options may be more efficient in creating incentives, the employer may need less of them (in value terms). By deploying indexed options, the overall compensation package may now have more straight compensation than one with conventional options. This line of reasoning adds, of course, to the puzzle of the relative infrequency with which indexed compensatory options are found. Indeed, the central puzzle discussed here is why indexed compensatory options are not more popular than conventional options, when it is these indexed options that would seem to offer better incentives with less risk.

A second, more important reason to think that indexed options are less risky than conventional ones and that the scarcity of this incentive-efficient tool remains puzzling is that since these options take aim at the firm's performance net of the market (or industry benchmark), the employee's risk reflects only firm-specific risk. For firms across a large beta range, conventional, fixed options are risky largely because the market as a whole is risky. If the indexed option eliminates the
market risk, then it would seem to follow that the holder is left with less risk.

But there is a significant problem with this argument associating indexed options with lower employee risk. When conventional options are entirely out of the money because the market as a whole has dropped, it is not uncommon for the employer to alter the exercise price, grant new options, or reissue the options for much longer periods or with other changes. Indeed, much of the criticism of compensatory options is focused on these revisions, which tend to be more common when agency costs are most serious. Indexed options would seem to spark revision much less often, if at all. In the extreme case, if an employee always expects revision of the conventional option deal when the market drops, the fact that indexed options eliminate market risk does not necessarily alter the relative risk picture.

A third (and related) reason for thinking that indexed options are less risky is that with indexed options there is only firm-specific risk, which is more easily diversified away by the employee who might buy stock or options in other firms. It is market risk that the employee cannot escape; to the extent that these options, or well-designed bonuses, impose firm-specific risk, it can be managed through portfolio adjustment.

But this avenue of risk reduction is most unlikely, and not simply because the employee may not have sufficient wealth to fiddle in this manner. The important point is that the employer-firm will eventually contract to try to prevent this diversification. In most cases, the incentive compatibility is powerful only if the employee's firm-specific risk is, in fact, dramatically increased.

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57 See, e.g., Susan J. Stabile, Motivating Executives: Does Performance-Based Compensation Positively Affect Managerial Performance?, 2 U. PA. J. LAB. & EMP. L. 227, 267-69 (1999) (using motivation theory to illustrate the problem of manipulating compensation by repricing and reissuing stock options). An interesting idea is that revisions are efficient because they permit employers to distinguish between continuing employees and ex-employees. But this suggests that employers cannot more simply reduce the initial option period or provide for option-holding employees' departures.

58 A fabricated but more intuitive way to think of this, is that indexed options offer rewards when the market as a whole drops so long as the particular employer's stock drops less than the market. Meanwhile, conventional options will be out of the money. Thus, indexed options reward less often when the market rises, but since they can also reward when the market falls, they are less risky than at first apparent. A conventional option might produce rewards one in three times (ignoring the varying magnitude of the reward) while an indexed option produces upside rewards only one in eight times. However, the indexed option also rewards in a down market perhaps another one in eight times.
Imagine, for example, that firms A and B compete in the manufacture and sale of aircraft, so that the revenues of either firm are normally at the expense of the other. If A gives its managers indexed options in A, and the manager can rid herself of firm-specific risk by entering the other "side" of the market in financial instruments with respect to A, or the manager can do this by investing in financial instruments associated with the stock of aircraft manufacturer B (which does well when A does poorly), then the very (incentive-based) idea of the compensatory options will be defeated. As noted earlier, there is important work on this subject and it is possible that firms (and tax law) do not do enough to prevent this maneuver by their options-receiving employees.\(^3\)\(^9\) It might, for example, be very difficult to monitor these employees' investments, especially the investments in instruments associated with another firm's stock. I will not, therefore, insist that this firm-specific risk cannot be eliminated by the employee, but it is probably fair to say that this argument does not negate the possibility that indexed options may be riskier than conventional options.

Still, all of these ideas seem rather modest compared to the central argument that indexed options would seem to offer much better incentives than conventional options, while at the same time imposing less risk on the employee because systematic risk is eliminated. This is, of course, the stock option puzzle with which we began.

b. **Super-Risk Alteration Introduced**

There is another risk to consider, and it plays an important role in the argument that follows. It is that indexed options pose a special danger because they encourage or tempt option-holding managers to push the firm to riskier (but lower expected-value) activities. This is of course true for conventional options, but it is a more serious problem with indexed options, which is why I refer to the risk as one of super-risk alteration.\(^4\)\(^0\) Generally speaking, conventional options encourage risk alteration of the sort that increases the firm's beta, while

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\(^3\) Note in passing that if employees can eliminate this firm-specific risk and, in the case of conventional options, if they can eliminate even more risk than that, then the employer will find that it can impose its compensatory options at lower cost—albeit because there is less of an incentive effect.

\(^4\) It can also be a more serious problem with other nonconventional options. See Shane A. Johnson & Yisong S. Tian, *The Value and Incentive Effects of Nontraditional Executive Stock Option Plans*, 57 J. Fin. Econ. 3, 13-15 (2000) (summarizing "differences in the incentive effects across the nontraditional stock options").
indexed options encourage differentiation from the benchmark. It seems likely that executives and other employees have more influence over the degree of differentiation (from the benchmark chosen by the employer or through bargaining between the employer and employees) than over the firm's beta. If so, the super-risk alteration explanation in the text (for the popularity of conventional rather than indexed options) is reinforced. These options are of greater value when the firm is more volatile, and employees might therefore wish to trade off expected value for volatility. If the employee profits mightily when the firm outperforms the designated benchmark, which might be other (ex ante) similarly situated firms, then the employee will be tempted to overdifferentiate the firm as compared to the benchmark. This overdifferentiation can be thought of as a variety of risk alteration. The critical step in explaining the absence of indexed options is that employer-firms decline to use a tool that will encourage inefficient and destructive behavior.

In some cases the employer will be able to monitor and penalize such risk alteration, but in other cases it will be unobservable, or difficult to sort out. The idea is to focus not only on the employer's need to offer more compensation in order to induce the employee to accept risk in the form of options or stock in the employer-firm, but also on the cost to the employer of monitoring the employee or absorbing the cost of poorer performance by the firm as it is influenced by these option-holding employees. With indexed options it is harder than ever truly to align the interests of employees and other investors.

It is also possible that in some cases a firm can reduce the super-risk alteration problem by tinkering with the terms of the option in order to create a kind of partially indexed option. Thus, the firm might construct a benchmark and then promise a larger reward for exceeding the benchmark than for falling short of it. Other possibilities might include an unbounded reward for success and a bounded penalty, or perhaps simply an indexed option that is limited in both directions as compared to a conventional option. With such a reward scheme, an employee might simply try hard to outperform the benchmark rather than to differentiate for the sake of speculation. But inasmuch as this sort of tinkering depends on the likely avenues of differentiation and on individual employees' risk attitudes, I think it is safe to say simply that indexed options introduce risk alteration, or overdifferentiation, concerns that conventional options do not.

11 See infra text accompanying note 51 (discussing the upside of indexing).
Firms might shy away from indexed options in order to avoid these alterations or the complexities of guarding against them.

Interested readers can investigate the magnitude of the super-risk alteration risk with respect to a given employee and with regard to a variety of instruments that might be used to motivate the employee. My aim here is only to set the stage for a new theory of why we find so many conventional compensatory options by raising considerable doubt as to whether we understand their popularity. If we do not, then we can put the blame on high agency costs and selfish managers. We might simply say that the burden shifts to favor the idea that managers take for themselves and their friends at the expense of shareholders (and even at the costs of society if options encourage inefficient volatility). That this transfer is in the form of options rather than straighter compensation might simply be attributed to the ability of managers to explain to shareholders and legislators the advantages of incentive-compatible compensation—and then the concurrent necessity of raising pay or granting more options than might first seem necessary to compensate options-receiving employees not only for the replaced salary, but also for the increased risk imposed on them. But for readers who prefer to think that markets work reasonably well, it is unlikely that agents can so easily fool their principals, who are hardly all amateurs. The question then is whether we can develop a better story about the popularity of conventional stock options. My claim, developed further below, is that the idea of super-risk alteration plays a critical role in this story.

II. COMPENSATION NORMS

A. Getting Started (with Some Form of Compensation)

Imagine a firm that pays its employees in cash. It is fairly easy to see how such a firm might (or might not) come to substitute some common fringe benefits, including some conventional stock options,

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42 The matter is recognized in Johnson & Tian, supra note 40, at 18 (discussing risk-alteration effect for a number of instruments), although the finance literature hardly emphasizes the problem.

43 A purist might ask for some theory as to how that currency, or baseline, took hold at the outset. My story of the evolution to conventional but not to indexed options relies on the idea that compensation practices are somewhat sticky and that experimentation with new forms of pay and incentives may be limited. Paradoxically, rational employers (and employees) who forecast such stickiness might reduce experimentation yet further.
for cash or for subsequent pay increases. In the case of traditional fringe benefits, marginal employees or a large majority of all employees might give up wages of 100 in order to accept benefits they value at 105, but that cost their employer (and are valued in the marketplace at) 95. In many cases, the gain comes from collective acquisition. Thus, workplace amenities, pensions, and health insurance might be less expensive when acquired by or for a group of employees, and the employer solves a collective action problem by providing the benefit and imposing it on all employees. In many cases, tax law adds to or provides the differential by allowing purchase by the employer out of pretax dollars. The employer receives a deduction for this expense just as she does for straight cash compensation, while the employees are not taxed on the value of the benefits they receive, though of course they would have been taxed on cash. In some cases these employees would have partial deductions if they purchased these goods for themselves, but in many cases they would not, if only because of statutory floors, a precondition that they itemize, or other such reasons.

There obviously is nothing remotely mysterious about the evolution toward fringe-benefit-laden compensation packages. Indeed, if tax law is too friendly, employers and employees might agree on benefits that they otherwise would not purchase. Nor is it entirely surprising to find some employers who resist these new packages. These employers might appeal to potential employees who value the benefits in question less than most.

Compensatory stock options might themselves have just such a genesis, because tax law once made them fairly attractive. But this is an awkward story to pursue because it implies unusual stickiness with respect to some benefits and not others. Expensive Christmas gifts to employees all but disappeared after tax law changed to exempt only

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4 The collective action approach can also explain how tax law limits the revenue loss by using a nondiscrimination requirement. See Julie A. Roin, United They Stand, Divided They Fall: Public Choice Theory and the Tax Code, 74 CORNELL L. REV. 62 (1988) (examining the collective action problem as a barrier to the success of a scheme for minimizing taxes).

5 Of course, we might imagine that with different practices, political pressure would build to make these recipient-level deductions more readily available.

6 Prior to Commissioner v. LoBue, 351 U.S. 243 (1956), employees who received option grants were treated as receiving a “proprietary interest” in their employers rather than compensation. Note that even this will be unfavorable for some taxpayers who prefer the employer’s deduction associated with ordinary compensation.
de minimis gifts from the employees' income;\(^{47}\) we might have expected compensatory stock options to wilt rather than to flourish.

**B. Bargaining as Signaling**

Stock options are unlikely to be cheaper when provided collectively, and we have already seen that tax law might be put aside or even marshaled in favor of the idea that options not be used as compensation. Still, it might be easy to explain the introduction of incentive-compatible elements to the compensation package, whether in the form of bonuses, stock, or options. The parties might reason that the pie will grow with such incentives and so they agree to share the gains from this substitution, even though some undesirable risk is imposed on virtually all recipients. If employees do not wish to accept the risk unless compensated in the form of higher overall wages (including fringe benefits), or a risk premium, the employer might choose to impose the risk at this cost in order to gain its share of the still greater product. With a variety of assumptions we can easily imagine some evolution to bonuses and to compensatory options.

But imagine that an employee's own risk attitude, or own portfolio, means that this employee would very much prefer cash to options. The employee thinks that she could make this change in a way that saves the employer considerable expense. Perhaps, on average, the employer is offering a good combination of incentives and (costly) risk, but this employee knows that she is out of the ordinary. The problem is that if the employee suggests a tailored alteration (or an alteration for all employees), the employer might see this as a signal that the employee has less-than-average confidence in her own work effort, in the firm's prospects, in her own likelihood of staying at the firm long enough to benefit from the options, and so forth. The employee may be fearful of making a mutually beneficial offer because to do so is to send a confusing signal. The employer will not know the employee's motivation and on average the message is negative.

Nor will it do much good for the employer to initiate the deal and to offer stock options and cash as alternative forms of compensation in search of those employees who would take the options in return for the most modest risk premiums. It is true that employees can accept or reject this form of payment according to their own risk preferences and ability to diversify with other wealth, but there will again be the

fear that the employer will interpret the employee's choice in a negative manner. It might even be unwise for the employer to offer the choice with some acoustical separation in place in order to ensure that the employer will never know which employees have accepted which packages. Even if the obvious logistical problems could be solved, the employer might lose from the self-selection by employees. Indeed, in a world in which many employers offer stock options, the remaining employers must be fearful that they will attract employees who plan to put in low work effort or to turn over rapidly before options vest. Optimistic employers might hope to get those employees who simply do not like risk but it may be hard to separate these groups. Moreover, within a single firm, employees who choose cash over options may not only be signaling their likely departure or their low self-assessment but also their own predictions about the firm's future. Managers or principals may wish to repel rather than attract such employees and employees will not want to send these signals. Even if the employee would accept a good deal less in cash than in options, the employee will hesitate to reveal this fact to the employer.

Employers might also affirmatively seek employees who like risk. These employees, as managers, may help the shareholders engage in risk alteration at creditors' expense. There is a significant fear that managers are too risk averse for shareholders' tastes. More generally, the very point of options may be to align the incentives of these employees and the firm's shareholders. If generic managers are thought to be risk-averse, empire-building, and salary-protecting characters, firms will not want to attract the most risk-averse managers. They will prefer to look for signs that their employees are unusual risk takers and in turn they can attract such managers by offering stock options instead of cash. Meanwhile, rational employees will, once again,

15 At the risk of repetition, an employee may wish to bargain with the employer, offering cost savings in return for less risk, but the danger is that the employer will read her as displaying a propensity to shirk, an expectation that she will soon depart from the firm (before any holding period or option period ends), inside information or simply an inclination to believe that the firm is in worse shape than the market knows, and even nothing more than serious risk aversion, which the employer might see as incompatible with the culture of the business. This step is not only familiar by now but also fairly intuitive; if executives were offered stock options in lieu of cash (and with a market value exceeding the cash alternative), we would expect few executives to have the courage (or foolishness) to turn down the options in favor of the cash.

16 See, e.g., Reinier H. Kraakman, Corporate Liability Strategies and the Costs of Legal Controls, 93 YALE L.J. 857, 865 (1984) (noting that risk-averse managers are likely to "'cheat' shareholders by surreptitiously choosing business strategies that are less profitable to the firm but less risky for its managers").
The argument is much the same for employees at all levels. A corporate board is unlikely to think much of an executive who prefers cash to options on the firm's future upside, and all the more so if market pressures have already caused the board, as employer, to build in something of a risk premium for the options.50

C. Indexed Options Revisited

1. The Problem

It would seem then that employees and employers should move rather quickly to indexed options. By moving from conventional to indexed options, employees would signal even more faith in themselves and the firm, while employers would locate risk-taking, confident employees. The stock option puzzle looms large—apart from the super-risk alteration problem, or explanation.

By way of review, one offsetting possibility is that both sides realize that it is too difficult to enforce a contractual prohibition against diversifying away the firm-specific risk. All employees can feign interest in firm-specific, or indexed, options, while in reality purchasing on their own instruments that offset these indexed options. As we have seen, it is more difficult to diversify away the risk that conventional options impose.51

Another reaction to the renewed puzzle is that, to the extent that indexed options decrease an employee's risk by eliminating systematic risk, employees might give the wrong signal by encouraging a move from conventional to indexed options. But this seems unlikely not...
only because they would also send a positive signal about their own work effort and their own confidence in the firm’s relative performance, but also because the package can be weighted more heavily toward options than before. Another signaling possibility is that the firm fears that indexed options will fail to attract employees who believe that the industry is especially promising. This too seems unlikely or unimportant because these potential employees can (by contract or otherwise) invest in the industry in tandem with their firm-specific options. Finally, the employer-firm might fear that a move to indexed options will signal that the firm predicts gloom for the industry (or other benchmark) so that it avoids conventional options because these will soon be underwater and useless as incentives. This seems to be a weak explanation of the stock option puzzle because the firm can simply index to the market as a whole, and it does not have special information about this benchmark.

In any event, the signaling idea helps us understand the evolution, if it is that, from salary to bonuses and then to stock or stock options. It is difficult for employees to decline this sort of risk. And if the firm does not offer such risky compensation, relatively uninformed employees might themselves take it as a signal that upper-level employees (who generally set the agenda for the directors) do not think much of the firm’s future.

The same may be true for employer debt, which can of course be offered as part of the compensation package. Shareholders are disinclined to offer their agents much debt because these agents’ incentives will then be aligned more closely with creditors’ than with the shareholders’ interests. At the same time, employees will hesitate to ask for debt because, once again, they do not want to imply some lack of faith in the firm’s future.

The harder task is to explain the disinclination to move from conventional to indexed options. The discussion now turns to this part

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52 For the classic statement, see Michael C. Jensen & William H. Meckling, Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure, 3 J. Fin. Econ. 305 (1976).
53 In any event, following Jensen and Meckling, we might simply say that fringe benefits related to retirement income already give the employees enough of a debt position, and that this debt is the most tax-advantaged kind.
54 I set aside the possibility that employees do not wish to suggest indexed options for fear of appearing too risk averse. This can be offset by asking that a greater fraction of compensation be in indexed-option form than in conventional fixed-option form. I also do not fully explore the possibility that good benchmarks are too difficult to construct or that indexed options might create new problems when managers con-
of the puzzle.

2. Super-Risk Alteration and Overdifferentiation with Indexing

We have already seen the idea that indexed options might encourage an employee to differentiate with respect to the benchmark in an inefficient manner. My claim here is that shareholders must worry that, if many employees hold indexed options, there will be too much risk alteration and differentiation, even to the point where the best projects in expected value terms are passed over in favor of riskier choices. I refer to this problem as one of "super-risk alteration" because it is much more than the usual problem creditors have with shareholders and more than the risk-alteration problem that shareholders have with employees who hold conventional stock options—as these employees will also prefer more volatile projects than will shareholders at large. Employees with indexed options are in the money when their firm does better than the market (or industry)—and this is more likely to happen when their firm takes chances that other firms do not. They are in the money on the upside when the firm exceeds the market (or the industry or other benchmark) and they are also rewarded on the downside if the firm drops but does so by less than the benchmark.

It is also useful to think of indexed options as asymmetric calls. If the firm does better than the market, the holder-employee gains; if the firm does worse than the market, the same employee does not pay the employer or otherwise emerge with negative income. It is this asymmetry that encourages extreme differentiation, or super-risk alteration. Imagine, for example, that an executive regards the employer-firm as on track to perform like the rest of the industry, apart from slight variations to be caused by individual work effort. This executive now has the opportunity to differentiate the firm by guiding it toward a radical product design. There is a one in three chance of

front takeover bids for the firm. Similarly, I accept the possibility that market pressures may be weak so that, for example, managers may seek a form of compensation (widely available conventional options) that easily camouflages their own high remuneration. My aim here is to show that risk alteration, signaling problems, and a norm (described as one of "nonconflicting fortunes") may well play some role in the prevalence of conventional fixed options rather than indexed compensatory options. However, I do not claim that all other variables are insignificant.

55 See supra Part I.C.2.b (introducing the concept of super-risk alteration).
stupendous success and a two-thirds chance of equally dramatic failure. If this executive holds a large number of indexed options, she will be tempted by the chance of great rewards. Plainly, this super-risk alteration arises because the executive holds options rather than indexed securities or a symmetrically indexed contract with both bonuses and penalties; there is no obligation to make payments to the firm in the event that the design flops. To ask an employee to take such a position in the firm, in other words to hold a kind of symmetrical, indexed security for incentive purposes, would require not only substantial monitoring to ensure that the employee did not escape this risk, but also so much more in the way of compensation as to make the cost prohibitive to the employer.\footnote{Furthermore, the employee may simply be thought unable to pay when the firm does poorly. Note that I continue to assume that if indexed options are superior on incentive-compatibility grounds, then the employer will not want the employee to escape the risk by diversifying. This seems to be a reasonable assumption, although alternatives are plausible. The easiest case is when, as before, the employee would diversify by investing in a competitor whose value was negatively correlated with the employer. \textit{See supra} text accompanying note 39 (giving an example of an aircraft manufacturer with zero-sum prospects). The alternative is that there may be occasions (or industries) in which hard work by an employee raises all ships. The employee may, for example, work hard to develop equipment that enables all aircraft to land and take off in terrible weather. This employee will work even harder if she profits not only from employer A's increased value but also from competitor B's increased value, when B copies or buys the new technology from A. But I will imagine that this is unusual and that in most cases when an employer indexes to a benchmark, it prefers that its employee not avoid the comparison by diversifying away the risk.} The indexed-option-laden employee will therefore be tempted to commit the firm to much riskier projects than shareholders would like. These projects may come with lower expected values than other projects available to the firm but the employee is looking for any reasonable chance of beating the market. If all executives in a firm, or a substantial fraction of all its employees, hold indexed options, it seems likely that the super-risk alteration problem will be grave. Put differently, indexed options in the hands of all executives might induce terrific work effort, but they would do so at too great a cost in terms of the losses to the firm from investing in projects of a high-risk, differentiated, and relatively low expected value character.

Of course, not all employees are in a position to commit the firm to such (inefficient and) risky endeavors. Some employees may not have such responsibilities and others may be easy to monitor. Moreover, some employees, or even some of these employees, may be more averse with respect to the risk associated with conventional stock op-
tions offered by the firm. The puzzle, then, is why these employees do not bargain for indexed options, and why the firm does not selectively offer indexed options to these employees. The prospect of indexed options in the hands of all employees may be too costly in terms of super-risk alteration. But it would seem more manageable for the employer to have selected employees with indexed options while most received and held conventional options. The puzzle is reinforced by the fact that the conventionally compensated employees would help in monitoring the indexed employees or would, at least, limit the likelihood that the decisionmaking process would become too skewed in favor of high-risk projects that aimed to differentiate this firm from the benchmark of the industry or the market as a whole. In short, the remaining puzzle is why we do not find selected employees receiving indexed rather than fixed options.

3. Norms

We arrive, finally, at the potential for effective norms. To begin, it is tempting in a norms conference to launch the idea that we have a norm against “talking about money” and that this explains why neither employee nor employer suggests indexed options. However, this alone will not explain our puzzle because conventional options, commissions, and some bonus systems are hugely popular even though they must be initiated somehow and even though they generate conversations about money around the water cooler and in the executive dining room.

We need norms only to explain the disinclination to offer indexed options to a subset of executives or employees, because we have already seen the problem with indexed options for all. First, it is useful to recall that these indexed options will be in the money even when the firm does poorly in absolute terms, so long as it does better than the benchmark. Imagine one situation in this sort of downturn; both the firm and the economy as a whole have experienced a bad period in absolute terms, but the firm is doing better than the benchmark. Most executives (and other option-holding employees) are well out of the money with their conventional options. Yet those with indexed options—if selected members of the group were offered indexed options—would be celebrating their good fortune.

My sense is that there is frequently a norm that might be described as an insistence that, or preference for, everyone in a group rising or falling together, at least to the extent necessary to prevent conflicts within the group. To the extent that institutions can be de-
signed so that members of a single community do not find that some rise while others fall, life will be easier together. To be sure, the members of a community might not want to share their fortunes when it would be sensible to diversify risks. But to the extent that they are similarly situated, there is something of a norm against advertising the presence of conflicting fortunes. It would be awkward or even unacceptable for some executives to celebrate their new wealth while others did poorly because their conventional options were well underwater.

A different version of this argument appeals to the intuition that these markets are imperfect and that executive pay involves a good deal of barely constrained self-dealing. Executives might be able to elicit high compensation in the form of compensatory options because such options seem to align their interests with those of shareholders, but it would be more difficult to extract high compensation if these options were very much in the money even when shareholders did poorly (in absolute terms). I like to think that the right rhetoric or educator could convince shareholders that indexed options were in their interests, so I prefer the first version of the argument offered here.  

Readers who share this intuition about the arrangement of "non-conflicting fortunes" will now have a complete picture. Employers do not offer indexed options to all employees in the targeted class, even though this would impose less risk and be less expensive and more incentive compatible, because of the problems of super-risk alteration and overdifferentiation. And they do not offer indexed options to selected employees in this class, such as those willing to accept less pay in return for less risk, because this would violate the norm of non-conflicting fortunes.  

Note that for a variety of reasons, it makes sense to think of a legal fiction, such as a corporate employer, as abiding by a norm. The entity itself might profit from establishing a reputation that grows with conforming to a norm; the entity is associated with individuals who cannot escape the norms and the reputational attachments that they have absorbed; also, the entity might abide by norms because its employees or customers are prone to respond to signals in certain ways.

55 I am indebted to Mel Eisenberg and Eric Orts for suggestions along these lines.  
56 I am not claiming that all employees must be paid the same. This is obviously a rare practice. Instead the claim is that one executive's pay will not be negatively correlated with another's except perhaps when they are in plainly advantageous competition for prizes or promotions.
Most readers will find this claim either too convenient or too weak in the face of the advantages of satisfying different preferences within a group or simply diversifying risk. I try to improve upon the claim (in the next Part) with some additional evidence of such a norm. The more this nonconflicting-fortunes norm is found, the more plausible it becomes that such a norm can explain practices with respect to employee compensation. First, however, it is useful to make a few observations in order to complete the story offered here.

It is unlikely that the firm could avoid the super-risk alteration problem, associated with giving indexed options to all employees in the class, by substituting semi-indexed options that paid when the firm exceeded the benchmark in an upside market but did not pay when the firm did poorly in absolute terms, even though it out-performed the benchmark. Such a semi-indexed, or upside-indexed, option would impose even more risk on the employee than conventional options and would come at such a grave price to the firm as to make it (perhaps) prohibitive. Moreover, this sort of option would not eliminate the risk-alteration problem. The employee would still prefer much more volatility than most shareholders and peer employees with conventional options. This employee will continue to try to differentiate the firm from its peers in ways that other investors would not want. Only by extracting money from the employee if the project does poorly will the employee internalize the shareholders' preferences. As discussed earlier, this sort of arrangement, amounting to an indexed security or indexed compensation, would surely impose too much risk.

In short, using a variety of tools, we are able to understand the popularity of conventional compensatory options and even the disinclination to offer some indexed options. These indexed options could both reduce risk for the employees in question and provide superior work incentives. Employees who sought to be part of this indexing, however, would not only be signaling their aversion to risk (which may be a negative signal), but also would be asking to be rewarded in a manner not correlated (and sometimes negatively correlated) with their peers. When the firm rose with the market, the con-

Note that this community of executives is not normally one that would gain from risk diversification among its members. It is not as if we expect most executives of firm A to subsidize the college education of other A executives' children if the latter group does poorly. In contrast, members of a small town might benefit by not having their children in one army regiment, and this sort of diversification, at the expense of camaraderie and the norm of nonconflicting fortunes, might well be desired.
ventional option holders would celebrate while the indexed option holders would receive nothing. Only when the market did very well and the firm did even better would the two groups have similar fortunes. And when the indexed option holders were in the money because the firm’s share price dropped less than the market as a whole, the indexed option holders would do well while the conventional group would be out of the money—campaigning for revision of the option terms and the like.

I am comfortable with the claim or social observation that many workplaces, and perhaps virtually all workplaces, could not tolerate such tension among peers. I think it fair to call this a norm, although it is possible to stress instead (or equivalently) the possible conflicts that would arise among the differently compensated groups and to insist that these conflicts simply create inefficiencies that are overcome by declining to introduce any indexed options. The norm perspective looks better when we think of the nonconflicting-fortunes norm as related to other norms about compensation and money.

D. Bonuses Revisited

Before turning to these other, related norms, it is useful to return to bonuses for some confirmation of the arguments offered here. At various points I have suggested both that bonuses might duplicate the incentive and risk characteristics of (fixed or indexed) options and that in some instances bonuses might appear inferior or superior as a component in a compensation package. Two additional points are now worth adding. First, to the extent that bonuses are tied ex ante or ex post, whether by contract or by practice, to firm-specific performance, these bonuses not only impose risks on the employee but also generate risk-alteration problems for the employer. We might say that bonuses often duplicate indexed options, so that both compensation tools create problems of risk alteration and excessive differentiation. In fact, most bonus systems probably fall in between conventional and indexed options. The expected bonus is greater as the firm does better in absolute terms, but there is room for reward based on firm-specific performance. The bonus might duplicate the compensation package of an employee who held a mixture of fixed and indexed compensatory options. Bonuses are like conventional options in that their value is linked to the absolute value (or profits) of the firm, but of course this means that the link is to both the market as a whole and the firm as a relative performer. To the extent that the bonus rises with the relative profits or value of the employer-firm, the super-risk
alteration problem is present. With most bonuses, this problem is not as great as it is when the employee is given comparable value in indexed options alone. We might simply note a small, new puzzle, namely the apparent fact that more executives are not offered some partially indexed options.

Second, bonuses also run the risk of creating tension by violating the norm of nonconflicting fortunes. To the extent that an advantage of bonuses is that they can be individually tailored, perhaps according to the responsibilities of the given employee, there is the danger of nonconflicting fortunes. Of course, this danger has an element of healthy competition or monitoring to it. Thus, if executives are rewarded based on the sales or profits of their respective divisions, then they may spend time arguing about the allocation of costs common to their divisions or they may decline to pursue policies that are good for the firm as a whole, but not cost effective in terms of the bonus keyed to one particular division. In principle, these conflicts can be solved with perfectly tailored bonus schemes, but in practice there are likely to be tensions. The nonconflicting-fortunes norm might in this way "explain" or be reflected in the practice of offering relatively uniform bonuses, which is to say that bonuses are not nearly as individualized as might first seem appropriate from an incentive-compatibility perspective. In any event, note that bonuses can be awarded ex post, with or without discretion, and in the form of options, fixed or indexed.

III. SPEAKING OF MONEY

On its own, the preceding claim about compensation norms may be provocative but unpersuasive. It is simply a story about why we do not find some employees bargaining with the employer to substitute indexed options for conventional options. It is not at all obvious that it is a better story than that offered, for instance, by the fact that accounting standards discriminate between fixed and indexed options. But the norms story is strengthened once we recognize the familiarity of the idea that there is something of a norm not to bargain or even to speak about money when one's fellows may have conflicting or disparate fortunes.

61 Thus, we might just as well devote effort to explaining why employees do not bargain away from conventional stock options to greater use of cash and indexed compensation. Bonus packages would seem capable of replicating the incentive compatibility of the conventional option package at lower cost.

62 See supra Part I.A.2 (noting that the accounting explanation requires an assumption of ignorant or irrational investors).
It will do no good to point to the etiquette of not speaking about money quite generally. Children may be taught that a family's income and the value of a family's assets or material gifts are things to be kept private, but of course there is plenty of money-talk in the workplace and in some places surely much discussion about the current value of conventional compensatory options. The trick continues to be to explain the use of conventional options when compensating all of a firm's executives, or even most of its employees, but the absence of the alternative of indexed options for some.

Why is it that in our culture we are taught not to discuss money? We hesitate to reveal the cost of our houses, the amount of our salaries, the extent of our stock holdings, the size of our income tax liabilities, the value of the gifts we receive or give, and so forth. In some cases we see interest in such topics as revealing an overly materialistic, perhaps selfish person. The norm against being such a person is fairly easy to explain. But the norm about money-talk extends to include discussion of gratuities and charitable contributions. To be sure, we reveal and even publish contributions to specific charities. But when we know that X gave $10,000 to a specific charity's campaign, we generally have no idea what X gave in total to all charities that year. The published number provides some information perhaps. An interested member of the audience might identify with X's professional status, or reason that X lives in a house valued about the same as the reader, and this observer might therefore see that X, at least, values this charity in a certain way.

A narrower and more accurate description of the norm is, I think, that we are taught not to discuss money when to do so highlights inequality and conflicting fortunes. We seek to avoid unpleasant comparisons and envy, but we encourage group solidarity even at the expense of the risk of envy. The more our fortunes are correlated with the fortunes of our listeners, the more money-talk is acceptable. In these cases, talking about money signals solidarity and mutual effort rather than greed and condescension. Thus, neighbors might discuss recent real estate tax assessments, but otherwise not discuss home values or even renovation costs with acquaintances who live in other neighborhoods. Many law professors would be more inclined to divulge their salaries to friends who work in law firms than to friends who teach at their or other law schools. In this case, envy and ill-feeling is more likely inside the community.

This nonconflicting-fortunes norm may be closely related to the interesting norm surrounding confidentiality about salaries. In some
workplaces, employers ask, or even "require," employees to refrain from sharing information about their compensation. In some cases employees might be given information about average raises alongside their own, but otherwise disclosure is discouraged. This employer preference can be understood as promoting solidarity because it is thought to lessen envy and the like and employees abide by the wishes of their employer to a remarkable degree. Of course, a skeptic might say that the employer requests confidentiality because the employer enjoys its monopsony and prefers that employees delude themselves into thinking they are well-treated. The employer may also prefer that employees have less information with which to come asking for increased salaries as individuals or as a group.

One cost to the employer (and perhaps to the employee) is that silence mutes the signals that the employer can send to individual employees. An employee who receives a low increase in a given year might not recognize the signal for what it is without information about the increases bestowed on peer employees whose work effort and relationships our employee can observe and compare with her own. Knowledge about the average increase helps somewhat but without information about the distribution of increases its value is limited. Presumably, most employers who request confidentiality choose not to offer full information of this sort on grounds that the information itself will spark too much curiosity about the identity of those who did and did not receive certain treatments. On the other hand, it is barely possible that most employees, or at least those on both margins, are well aware of compensation levels at competing firms if only because they receive or seek offers from these other employers. In such case, the cost of the confidentiality norm is low.

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63 As a legal matter, employers may be unable to force silence on their employees. There are cases in which the employer made confidentiality more than a suggestion and then fired an employee who violated the rule. It appears that a well-advised employee-plaintiff can do well by arguing that the speech was a part of organizing employees or that it was part of collecting information for another legal claim. Compare Aroostook County Reg'l Ophthalmology Ctr. v. NLRB, 81 F.3d 209 (D.C. Cir. 1996) (reversing part of NLRB findings that enforcing a rule of silence, though not with respect to compensation, was an unfair labor practice but implying that some restrictions would be acceptable), and Jeannette Corp. v. NLRB, 532 F.2d 916 (3d Cir. 1976) (opining that discussion about wages could be protected, concerted activity as necessary to further the goal of organizational activity, even when the confidentiality policy had been in effect for many years prior to the organizing campaign), with Williams v. Columbia/HCA Healthcare Corp., No. 98-2084, 1999 U.S. Dist. LEXIS 11914 (D. Kan. July 30, 1999) (finding for the defendant who fired an employee because she discussed her salary with another employee).
Note that here too we might expect a sticky practice because of signaling considerations. An employee who thinks the confidentiality norm unwise, or who perceives great gain from information-sharing, will hesitate to defy the employer, even by talking with another employee. Noncompliance is dangerous because it might be understood as a signal that one is a troublemaker, regularly disgruntled, eager to promote envy and discord, or contemplating exit. It may even be costly to ask the employer to reconsider the confidentiality instruction because the inquiry itself might be understood as a sign of discontent or lack of faith in the employer's centralized compensation-setting function. Much as an employee will not want to ask for substitution away from conventional options to straight salary (even at lower cost to the employer), the employee will not want to ask for an end to the confidentiality instruction.

Most employees would not even be the first to suggest that their employer put a suggestion box in the workplace, because to do so risks signaling a belief that the employer is imperfect or difficult to approach. The same employees will hardly question the wisdom or fairness of confidentiality rules and they would surely not ask to be relieved of the risk of conventional compensatory options.

Anecdotal evidence suggests that confidentiality is successfully imposed on, or suggested to, relatively small, cohesive workplaces. If this is the case, then it strengthens the norms claim just advanced. Faculty members, for example, are in some places part of a lock-step salary system based on seniority, in which case they surely have nonconflicting fortunes. Where their pay is individualized, a confidentiality norm is often in place (at least as much as possible until there is publication by third parties and the like), and we can see this practice as aiming to maintain the sense of community. These employees are asked not to speak about money precisely where talk might produce envy and might emphasize the fact that to some degree one faculty member's raise comes at the expense of another.

Ironically, it is possible that the confidentiality practice increases the chance of exit as it limits an employee's opportunity for "voice."

In some cases it is tempting to go so far as to say that if a group is unlikely to abide by confidentiality, perhaps because it regards the employer as an adversary not to be trusted, then the employer and the group may be wise to insist on lock-step compensation in order to promote group solidarity. This turns around the usual direction of the cause and effect.
CONCLUSION

It is easy to explain the move from salaries alone to salaries with some bonuses to a package of salaries alongside employer's stock and then to salaries with conventional compensatory stock options, though it would not be surprising to find a move back to bonus plans of varying complexity. It is harder to explain the apparent dominance of conventional stock options over indexed stock options. The standard explanation focuses on accounting treatments, but this sort of explanation defies normal assumptions about rational investors.

I have tried here to heighten the puzzle of conventional stock options and then to solve it. Tax and risk-premium considerations probably deepen the puzzle, although in passing there is an explanation for the popularity of conventional stock options even for low-level employees in some firms, namely those with no present tax liability.

But the failure of firms completely to substitute indexed options for conventional options can be explained as reflecting the danger that indexed options will cause agents to engage in what I have called super-risk alteration, or even inefficient differentiation of the firm as compared to benchmark firms. This problem arises because it is thought to be too costly for the employer-firm to impose indexed securities, as opposed to asymmetrical options, on employees; the options encourage dangerous differentiation because the holders-employees do not pay when the firm does relatively poorly.

This leaves the puzzle of why indexed options are not offered to, or bargained for by, the subset of employees who are easiest to monitor or most eager to eliminate the systematic risk associated with conventional options. Here the solution lies in signaling and in the apparent norm of nonconflicting fortunes. Employees hesitate to decline conventional options because they might be seen as shirkers, early departers, skeptics about the firm, or unattractively risk averse. And the firm might hesitate to offer indexed options alongside conventional options because to do so would create tension among employees. We do not talk about money when to do so highlights inequalities, and coexisting options of this sort would create just such inequalities and the envy that goes along with it.

In the end, only a modest fraction of the compensation story offered here relies on norms thinking. Signaling and super-risk alteration play larger roles. But the overall story is a new one and the role played by norms in understanding the stock option puzzle is a useful opportunity for thinking about the more general norm about money talk.