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Puzzling Stock Options and Compensation Norms

*Saul Levmore**

Why do so many executives and other employees receive fixed stock options as part of their compensation packages? There is an impressive literature on compensatory options, and yet 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 do 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, in the form of employees' disinclination 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.

* * * *

I. 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 around

* William B. Graham Professor of Law, University of Chicago. This draft, of November 1, 2000, is a preliminary version of a paper to be presented at a University of Pennsylvania Law School conference on Norms and Corporate Law in December, 2000. A later version will include more complete footnotes. I am grateful for excellent suggestions received from Henry Smith and George Triantis. Interested readers can contact s-levmore@uchicago.edu, where comments are of course also welcome.

the practice of giving a class of employees a large percentage of compensation (in expected value terms) in the form of options with a strike price 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 non-managerial employees, but it has grown to include a majority of traded firms and 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

¹ See Todd Perry & Mark Zenner, CEO Compensation in the 1990's: Shareholder Alignment or Shareholder Expropriation? 35 Wake Forest L. Rev. 123, 123-124 (2000) (suggesting that stock option grants to CEO's grew some 335% over this seven-year period, while CEO salary rose at a rate only slightly higher than average employee compensation); Hamid Mehran & Joseph Tracy, The Impact of Employee Stock Options on the U.S. Labor Market (Draft of May 1, 2000) (comparing use of stock options grants and realizations for low, middle and high-salary employees and reporting tripling in realizations from 1995-98); Randall S. Thomas & Kenneth J. Martin, The Effect of Shareholder Proposals on Executive Compensation, 67 U. Cin. L. Rev. 1021, 1024-1028 (2000) (discussing the current trends in executive compensation).

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 Calvin Johnson, *infra*_; Miller, *infra* note _; James R. Repetti, The Misuse of Tax Incentives to Align Management-Shareholder Interests, 19 Cardozo L. Rev. 697 (1997). 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 on 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 be subject to FICA).

On the agency problem relationship, see Don M. Chance, Raman Kumar, & Rebecca B. Todd, The 'Repricing' of executive Stock Options, 57 J. Fin. Econ. 129 (2000) (repricing more likely for firms with greater agency problems, of smaller size, 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 issuing new options at a discount from the current market price).

straight compensation. Part II 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. There emerges something of a puzzle as to why conventional compensatory options are so popular. I refer to this as the stock option puzzle.

Part III 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 “nonconflicting fortunes” among similarly situated employees, or within other communities. These ideas play important roles in part because employees are, quite explicably, 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, we find that employees would have trouble bargaining away from prevailing practices because to do so might send an unpleasant signal that is wisely avoided.

Part IV 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 done with 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.

II. 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, and so forth. But it is easy to see why shareholders might prefer for compensation to 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 something 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 It is tempting to dwell also on commissions which can be thought of as a style of bonus. Commissions are simply compensation that is linked to sales or other outputs thought to be in the individual's control, though perhaps a subtle form of profit-sharing. But commissions -- at least as the (nonlegal) term is normally used -- are more incremental than 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, it is surely the case 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

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 to the firm's overall profits but also that it is sensitive 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 apt 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 might simply 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

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 discussion of employee risk aversion (a topic discussed beginning in Section infra), 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.). But there are many counterexamples to this three-part division. And a more pessimistic or puzzling perspective is to wonder why bonuses could not do whatever the options do. 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. 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).

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 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 where 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 marginally 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 Section 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 yet 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. As such, 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 will otherwise find offers from competing firms more attractive.

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 should say that this shortchanges non-employee investors. One form of the critical claim is that the firm can hardly win; the original compensation 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 receives new or revised options. Superficially, this looks too good for the employees.

Even where the firm will not issue new options or revise existing options when the shares drop in value, the firm can be seen as giving something away 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 version of the criticism. One way or another, there is a reasonable claim 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.⁴

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 in this manner (by not revising or resetting the options), and wages are otherwise thought to be inefficiently sticky. 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 ideas suggest the superiority of conventional options over many bonus plans, which can easily cause employees to overstay and which may create problems and even litigation or employers who wish to layoff 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.

⁴ The argument is often traced to Bengt Holmstrom, Moral Hazard and Observability, 10 Bell J. Econ. 74, 82-83 (1979).

In theory, many arguments of the sort just advanced can be parried with some claim about well-functioning markets or rational expectations. 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 employers will need to pay lower salaries (or promise fewer or simply less valuable options) in the first place. Everyone can assess the contingent value of the options (and replacement options) because market 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. Moreover, if the gist of the criticism is that fancy compensation packages are hard to evaluate and monitor and that, therefore, compensatory options allows agents to transfer wealth to themselves under the guise of the claim that well-aligned incentives are good for the firm, it must be remembered that stock options are not the only known fancy form. 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 not simply allow agents to fool and take from their principals because this power will be reflected in the initial compensation package as employees bid for these packages with lower salaries, returns us to the question of indexed options. Why are stock options rarely indexed to market (or industry) prices?⁵ As already suggested, this sort of indexing would seem to be efficient because it would maintain incentives for the relevant employees even when stock

⁵ 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 (1997).

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.⁶ 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 on which both the number of shares optioned and the option exercise price are known.⁷ The expense calculation is then based on the compensatory value of the stock options – but this consists only 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 zero 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 5,000 in 1997.

There is of course value given to the employee with this option, and this is greater the more volatile the share price. The value of this three year option period could therefore be calculated, but the firm need not do

⁶ See, e.g., Merton Miller, ___; Alfred Rappaport, *Misplaced Concerns About Indexed Options*, *Harvard Business Review* 94 (March-April 1999).

⁷ The accounting rules are discussed in Herbert Kraus, *Executive Stock Options and Stock Appreciation Rights* §§ 4.01-4.04 (2000); Jill E. Lyons & Patrick S. McGurn, *Compensation for Executives and Broad-Based Employee Groups: Strategy, Design, and Implementation: Performance-Based Equity Awards: The Road to Real Value*, *American Law Institute - American Bar Association Continuing Legal Education*, SC67 ALI-ABA 177 (1998).

so -- except that beginning in 1995, accounting standards required the firm to disclose via 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 which would have taken this time value into account.⁸ The footnote thus reports 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 $(30-20)1000$, 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.⁹

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,

⁸ [cite]

⁹ 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 (I suppose) arguable that the employer prefers to do this rather than to offer other bonuses for future performance or other incentives 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 APB Opinion No. 25 (1972) (Accounting Principles Board); Statement of Financial Accounting Standards No. 123 (1995) (Financial Accounting Standards Board).

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 puzzle with the observation about accounting rules. Firms appear to benefit by “hiding” the true cost of compensating their employees.

There are other examples or 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 conventional 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 and this in turn makes it difficult to argue that we should not be concerned when options are readily revised in bear markets.¹⁰ 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.¹¹

We might turn now to a different explanation for conventional options. But the puzzle is made clearer and 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

¹⁰ 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, Kose John, & Rangarajan K. Sundaram, 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.

¹¹ Accounting standards would of course require reporting the costs of these bonuses. See Paul Healy, The Effect of Bonus Schemes on Accounting Disclosure, 7 J. Acct. & Econ. 85, 106 (1985).

form of compensation, can surely explain a preference by actual taxpayers for the form in question. The discussion thus far has discussed 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 on this sort of compensation until (and only if) options were exercised in order to ascertain their value to the employee (who might for example need to wait for some conditions to pass 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 and it is easy to see that the parties might bargain (or evolve) toward pay packages that included a good deal of this sort of currency. Tax reformers might try to limit employers' deductions or might seek to deny the employees open-transaction treatment, but meanwhile we would expect to see a great deal of the tax-favored options.

But our present tax system hardly goes this far. Section 422 of the Internal Revenue Code allows an employee to receive and eventually to sell qualified incentive stock options, recognizing only capital gain on 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.¹² 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 (and 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

¹² IRC §421(a)(2).

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 more of this incentive-laden currency. The right treatment might be something in between (adjusting even for the employee's unusual risk, as discussed presently) but this is sufficiently complicated that the Code tries to compromise, perhaps, with the \$100,000 limitation.

In any event, the treatment associated with qualified options can not explain why indexed options are not more popular. Even if the market price falls and the indexed exercise prices 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."¹³

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.¹⁴ If value is not readily ascertainable at grant time, generally because this is not a widely traded stock, then the employee waits until exercise or disposition and reports the difference between receipts and cost (exercise price) at that time.¹⁵ At the time the employee has income, the employer has a deduction.¹⁶ 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 to focus on putative tax advantages for the option-holding employee, when the real issue is whether 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

¹³ IRC §422(b)(5).

¹⁴ Reg. §1.83-7(a).

¹⁵ Id.

¹⁶ IRC §83(h).

stock and the approaching end of the option period (including employee departure, perhaps), 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, the tradeoff is a poor deal in terms of tax planning.¹⁷ 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 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 advantage 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 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. 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 advantages as conventional options – and the same more likely disadvantage – and they would seem superior in terms of incentive effects.¹⁸ Put slightly differently, instead of giving an option worth \$50,000 to an employee, the employer could sell stock or equivalent options to outside investors, receive this money tax free (because no gain is recognized 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 compensation tailored to whatever outputs or inputs seemed appropriate as a matter of

¹⁷ Calvin H. Johnson, *Stock Compensation: The Most Expensive Way to Pay Future Cash*, 85 Tax Notes 351, 365-67 (1999).

¹⁸ Leaving aside the possibility that they help the contraction process in the event of downturns. See ___.

incentives. The employee is taxed on the whole amount at, say, 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 especially) for low-level employees – though perhaps not un-indexed options – in Silicon Valley and other start-up hotbeds. If the employer has no need for deductions at present, then converting employee ordinary income into capital gain (where, 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 employer'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 secretaries capital gain rather ordinary income with respect to some of their compensation package.¹⁹

Calvin Johnson goes much further.²⁰ 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.²¹ And my purpose here does not, in any event,

¹⁹ There is obviously much more to be said here, and my analysis is meant only as a first cut. My aim is to offer a story about the popularity of fixed rather than indexed compensatory options, ideally with some norms-thinking mixed in, and I think it clear that tax law does not explain this options puzzle. In any event, I can count on my commentator to pursue the tax angle and intuitions.

²⁰ Calvin H. Johnson, *Stock Compensation: The Most Expensive Way to Pay Future Cash*, 85 *Tax Notes* 351 (1999).

²¹ The easiest case is to imagine that employees can take their pay in the form of employer debt and turn it into employer equity. More generally, Johnson, *id.*, compares stock options with employer debt, though he also explores the choice between stock (or stock options) and cash. His focus on "future cash" may be practical to the extent that one reaction to the stock option puzzle is that many start-up firms do not have cash. Johnson discusses the question of whether the tax law would recognize these firms' debt as entitled to interest deductions and the like. But this is not the place to dwell on all aspects of Johnson's provocative work. It is the fact that taxes not only do not explain the taste for compensatory fixed options, but make the puzzle of their popularity greater, that is important here.

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.²² 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 in the way 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 half her compensation in this one basket, so to speak.²³ 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.²⁴ 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 as reflecting the point that these options would be very costly

²² See, e.g., Hall & Kevin Murphy, Optimal Exercise Prices for Executive Stock Options, __ (1999).

²³ And much more than that for chief executive officers. [cite data]

²⁴ See Lisa K. Meulbroek, The Efficiency of Equity-Linked Compensation: Understanding the Full Cost of Awarding Executive Stock Options (Harvard Business School Working Paper 2000). 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. Accounting & Econ. 5 (1996).

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 which 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 the employee's perspective, and therefore one would think that employers would regard bonuses as a less expensive means to their end.²⁵

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 these employees, but some sense of shared fortune may promote a sense of community, loyalty, and hard work.²⁶

Stock options for landlords in lieu of straight lease payments might also incorporate something of an indexing component.²⁷ In a place like Silicon Valley, when 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

²⁵ It goes almost without saying that some readers will at every turn of the road intuit 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 where they could not have emerged with equivalent bonuses and the like. My inclination is to look harder for an explanation of prevailing compensation packages.

²⁶ I do not put much weight on this idea here, although I do develop the shared fortune idea in a slightly different context below in Section III-D and Part IV.

²⁷ 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 _.

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 should therefore expect options-as-rent to be more common in longer leases.²⁸ Again, however, the tenant-firm 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 which 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 in their futures. The 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 in the way of aligning incentives. As such, 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.²⁹

²⁸ Alternatively, to the extent that longer option periods increase the value of the option, we may find landlords bargaining for longer leases when part of their compensation is in option form, and the option ends when the landlord-tenant relationships ends.

²⁹ On this subject, and for the idea that the contractual rules might be hard to enforce and might in any event be much firmer than they are at present, and also 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

2. Risk and indexed options

a. Risk to the employee (and cost to the employer)

The focus in this Section on risk 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 does 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 this wealth would take.

With this in mind, perhaps we can explain the scarcity of indexed options with the claim that an equivalent value of these indexed options would impose even more risk on employees, so that an employer who sought to use indexed options 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 where the firm does well because or while the market does well. For illustrative (nontechnical) 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

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, (Draft of Oct. 31, 2000) (reporting that 62 of 93 sampled contracts with CEOs discussed stock option compensation, 8 restricted sale of options, with 3 of these restricting pledging and 0 restricting hedging transactions).

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 one in eight times, perhaps. 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, so 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 it will be so by the time the required holding period ends is less. It is possible, then, that the indexed options look much riskier than apparently equivalent conventional options.³⁰ 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 do poorly 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

³⁰ [Explain idea that relative performance might wander in and out of the money more than conventional options.]

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. It is that 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 where agency costs are most serious.³¹ Indexed options would seem to spark revision much less likely 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 and this 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.³²

³¹ [cites needed. See Finance symposium]

³² A sloppier 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. As such, indexed options reward

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.

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.³³ 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 eliminate the possibility that indexed options may be riskier than conventional options.

Still, all 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

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 produced *upside* rewards but one in eight times -- but then also rewards in a down market perhaps another one in eight times.

³³ Note in passing that if employees can eliminate this firm-specific risk and, in the case of conventional options, if they can eliminate 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.

There is another risk to consider, and it is one that plays an important role in the argument which 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) options. This is of course true for conventional options, but it a more serious problem with indexed options, and that is why I refer to the risk as one of super-risk alteration.³⁴ These options are of greater value when the firm is more volatile, and employees might therefore wish to trade-off expected value for volatility. 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. I return to this presently, but 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 to truly align the interests of employees and other investors.

Interested readers can investigate the magnitude of this risk with respect to a given employee and with regard to a variety of instruments that might be used to motivate the employee.³⁵ My aim here does not require a conviction that risk is at the heart of the case for or against indexed options. I have simply tried to set the stage for a new theory of why we find so many conventional 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

³⁴ 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).

Generally speaking, conventional options encourage risk alteration of the sort that increases the firm's beta, while indexed options encourage differentiation from the benchmark. It seems more likely that executives and other employees can influence the degree of differentiation (from the benchmark chosen by the employer) than 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.

³⁵ The matter is recognized in Johnson & Tian, *supra* note __, at __ (discussing risk-alteration effect for a number of instruments), although the finance literature hardly emphasizes the problem.

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 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. As we will see, the idea of super-risk alteration plays a critical role in this story.

III. Compensation Norms

A. Getting Started (with Some Form of Compensation)

My story of the evolution to conventional but not to indexed options relies somewhat on the idea that compensation practices are somewhat sticky and that experimentation with new forms of pay and incentives somewhat difficult. To be sure, rational employers (and employees) might forecast the stickiness and therefore hesitate to experiment in the first place. But this sort of irreversibility³⁶ is paradoxically difficult to avoid, for avoidance means no experimentation in the first place.³⁷

Imagine a firm that pays its employees in cash -- though a purist might ask for some theory as to how that currency, or baseline, became so popular. 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, for cash or for subsequent pay increases. In the case of traditional fringe benefits, marginal employees or a large

³⁶ See Saul Levmore, *Irreversibility and the Law: The Size of Firms and Other Organizations*, 18 J. Corp. Law 333 (1993).

³⁷ [explain that we might start with all cash and then any move precludes later experimentation, so we are stuck with first innovation which might still be better than no innovation at all.]

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.³⁸ In many cases, tax law adds to or provides the differential by allowing purchase by the employer out of pre-tax dollars. The employer receives a deduction for this expense just as it 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 or a precondition that they itemize and so forth.³⁹

There is obviously 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 would otherwise 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.⁴⁰ 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 de

³⁸ 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).

³⁹ Of course, we might imagine that with different practices, political pressure would build to make these recipient-level deductions more readily available.

⁴⁰ 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. As will become clear, even this will be unfavorable for some taxpayers who prefer the employer’s deduction associated with ordinary compensation.

minimis gifts from the employees' income;⁴¹ we might have expected compensatory stock options to wilt rather than to flourish.

B. Bargaining as Signaling

Stock options are not more cheaply 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 reason that the pie might 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 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 on the options in return for the most modest risk premiums. It is true that employees can accept or reject

⁴¹ See generally Marvin A. Chirelstein, *Federal Income Taxation* 68-71 (1999).

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 promise 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 where many employers offer stock options, the remaining employers must be anxious 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.⁴² 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.⁴³ 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

⁴² 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.

⁴³ [Conventional cite.]

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 again decline to ask for cash instead of stock.

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. 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.⁴⁴

C. Indexed Options Revisited

1. The problem

It would seem then that employees and employers should move rather quickly 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 now looms larger than before.

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 that which conventional options impose.⁴⁵

Another reaction to the renewed puzzle is that to the extent that indexed options *decrease* an employee's risk by eliminating systematic risk, then employees might give the *wrong* signal by encouraging a move from conventional to indexed options. But this seems unlikely not only because

⁴⁴ It is not as if the employer can offer less valuable options in lieu of cash and attract or retain employees who fear that they will send negative signals. Other employers will offer cash, limited only by the self selection problems which will be fairly small until there is a considerable risk premium in the compensation offered by employers who compensate with cash and options.

⁴⁵ I do not mean to minimize the problem of employers' ensuring that employees with conventional options do not escape the intended incentives. But this is a problem discussed elsewhere. See, e.g., Schizer, *supra* note ___. The point here is that it is easier to diversify away firm-specific risk so that, sans prohibitions by enforceable contracts or by legal regimes (including insider trading laws and tax law discouragements), employees will be more likely to unburden themselves of the risk associated with indexed options than they would with fixed options. But the problem discussed in the text is not limited to indexed options. Note also that diversifying away firm-specific risk might be costly. Compensatory options have fairly long time horizons (for both incentive and tax reasons), and an employee might therefore need to make numerous offsetting investments.

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. Not only might shareholders be disinclined to offer debt instead of cash, for fear that their employees will run the firm in a way that pleases creditors more than equity holders,⁴⁶ but also employees might hesitate to ask for debt because, once again, this implies some lack of faith in the firm's future.⁴⁷

The harder task is to explain the disinclination to move from conventional to indexed options.⁴⁸ It is to this part of the puzzle that the discussion now turns.

⁴⁶ [Refer briefly to the usual Jensen-Meckling argument.]

⁴⁷ In any event, following Jensen & 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.

⁴⁸ I set aside the possibility that employees do not wish to suggest indexed options for fear of looking 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.

2. Super-risk alteration and over-differentiation 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.⁴⁹ 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 will call this problem that of super-risk alteration because it is much more than the usual problem creditors have with shareholders⁵⁰ and more than the risk alteration problem 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 the 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 whatever the benchmark) and they are also rewarded on the downside if the firm drops but does so 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, but if the firm does worse than the market, the same employee does not 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 stupendous success and a two-thirds chance of equally dramatic failure. If this executive holds a large number of indexed options, he will be tempted by the chance of great rewards. Plainly, this super-risk alteration arises because the executive holds options rather than indexed securities; there is no obligation to make payments to the firm in the event that the

⁴⁹ See supra Section II.C.2.b.

⁵⁰ [cite Triantis discussion]

design flops. To ask an employee to take such a position in the firm, which is to say 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.⁵¹ 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 others 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 it would 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 to the risk associated with conventional stock options offered by the firm. The puzzle then is why these employees do not bargain for indexed options, or 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

⁵¹ And 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 where, as before, the employee would diversify by investing in a competitor whose value was negative correlated with the employer. See supra __ (aircraft manufacturer example 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 takeoff 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.

options while most received and held conventional options. The puzzle is reenforced by the fact that the conventionally compensated employees would help in monitoring the indexed employees, or would at least control the likelihood that the decisionmaking process became 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. But of course this alone will not explain our puzzle because conventional options, commissions, and some bonus systems are hugely popular even though they must be somehow initiated 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. It is useful first 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 now 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 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 designed so that members of a single community do not find that some rise while others fall, life will be easier together. To be sure, 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.

Readers who share this intuition about the arrangement of “nonconflicting 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 problem of super-risk alteration and over-differentiation. 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 nonconflicting fortunes.⁵²

Most readers will find this claim too convenient or too weak in the face of the advantages of satisfying different preferences within a group or simply diversifying risk.⁵³ I try to improve upon it (in the next Section) with some additional evidence of such a norm. The more this nonconflicting-fortunes norm is found, the more plausible it is that it explains practices with respect to employee compensation. But first 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 upside-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 outperformed the

⁵² 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.

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

⁵³ But 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.

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 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 and differentiate the firm from its peers in ways that other investors would not want. Only by extracting money from the employee in the event the project does poorly will the employee internalize the shareholders' preferences. And this sort of arrangement, amounting to an indexed security or indexed compensation, would, as discussed earlier, surely impose too much risk.

In short, with 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, but employees who sought to be part of this indexing 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 conventional 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 comparable 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 -- lobbying 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, I think, when we think of the nonconflicting fortunes norm as of a piece with 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 ways in which bonuses might duplicate the incentive and risk characteristics of (fixed or indexed) options, and 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 impose risk 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 mixture of conventional and indexed options.

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, indeed, mediated with perfectly tailored bonus schemes, but in practice there are likely to be tensions. The nonconflicting-fortunes norms 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 currency of options, fixed or indexed.

IV. Speaking of Money

On its own, the preceding claim about compensation norms may be unpersuasive. It is simply a weak story about why we do not find some employees bargaining with the employer to substitute indexed options for conventional options.⁵⁴ 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.⁵⁵ 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.

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 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.

⁵⁴ Perhaps we should be explaining why they do not bargain for more cash and more indexing, for such a package might replicate the incentive compatibility of the conventional option package at lower cost. But if the employer wants the employee to take on a position as risky as that created by the conventional option package, and the employer is confident in its ability to control risk alteration against the interests of (even) the shareholders, then there may be more substitution of indexed options for cash.

⁵⁵ See supra _ (noting that the accounting explanation requires an assumption of ignorant or irrational investors).

Why is that in our culture we are taught not to discuss money? We hesitate to reveal the cost of our houses, our salaries, the extent of our stock-holdings, the size of our income tax, 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 how much money one gives to charity. To be sure, we reveal and even publish contributions to specific charities. But when we know that X gave \$10,000 to a charity's campaign, we generally have no idea what X gave 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. Much as I like to know how much a colleague is spending on a Christmas gift for a secretary we both work with, I would like to know how much this colleague contributes to our children's school's fundraising campaign.

A narrower and 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 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 worked as lawyers 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.⁵⁶ 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 the employer to a remarkable degree. Of course, a skeptic would 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. 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

⁵⁶ In fact, it is unlikely that employers can 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 Regional 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 where the confidentiality policy had been in effect for many years prior to the organizing campaign) with *Williams v. Columbia/HCA Health Care Corp.*, No. 98-2084, 1999 U.S. Dist. LEXIS 11914 (D. Kan. 1999) (finding for defendant who fired an employee because she discussed her salary with another employee).

receive or seek offers from these other employers. In such case, the cost of the confidentiality norm is low.

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.⁵⁷ 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.⁵⁸ Where their pay is individualized, a confidentiality norm is often in place (at least so 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

⁵⁷ Ironically, it is possible that the confidentiality practice increases the chance of exit as it limits an employee's opportunity for "voice."

⁵⁸ 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 turn around the usual direction of the cause and effect.

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.

V. Conclusion

It is easy to explain the move from salaries to salaries with some bonuses and then to a package of salaries alongside stock and then to salary with conventional 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 conventional 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 with 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 holder-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 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 departures, 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.

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