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## **Tax Constraints on Indexed Options**

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*Tax Constraints on Indexed Options*

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Indexed stock option grants reward executives for outperforming a benchmark, such as the market as a whole or competitors in the same industry.<sup>2</sup> These options offer superior incentives by diminishing the influence of factors beyond an executive's control, such as general market and industry conditions.<sup>3</sup> Yet indexed options are almost never used.<sup>4</sup> Professor Levmore seeks to explain this puzzle with norms. The main point of this comment on his Article is that tax plays a larger role in this puzzle than Professor Levmore acknowledges, although

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<sup>2</sup>A traditional option gives the holder the right, but not the obligation, to purchase property for a set price called the "exercise" or "strike" price. For instance, an option might offer stock for the firm's then-current share price of \$100, allowing the executive to profit from appreciation above \$100. In an indexed option, in contrast, the exercise price fluctuates with some benchmark, such as the Standard & Poors 500 Stock Index ("S&P 500") or an industry basket. For instance, the option might entitle the executive to buy stock for 1/13 the value of the S&P 500 (which is assumed to be 1,300 currently). For this option to yield a profit, the firm must outperform the S&P 500. For instance, if the firm's share price doubles to \$200 but the S&P 500 increases even more to 3,900, the executive makes no profit (because the option yields the right to pay \$300 for stock worth \$200). On the other hand, if the stock declines to \$80 but the S&P 500 declines even more to \$650, the executive makes a \$30 profit. In basing pay on *relative* performance, then, indexed options reward good performance even in a falling market, without rewarding poor performers in a rising market.

<sup>3</sup>See Bengt Holmstrom, Moral Hazard and Observability, 10 Bell J. Econ. 74, 82-83 (1979).

<sup>4</sup>The rarity of indexed options is well known, and has commonly been described as a puzzle. See, e.g., Brian J. Hall and Jeffrey B. Liebman, Are CEOs Really Paid Like Bureaucrats? 113 **Q. J. Econ.** 653, 683 & n. 34 (1998) (noting that indexed options "would represent a substantial improvement over current contracts" but are seldom used, and observing that "the near complete absence of relative pay seems to be a puzzle.").

tax is not a complete explanation.<sup>5</sup> Accounting and Professor Levmore's norms-based account are then briefly considered.

## I. TAX CONSTRAINTS ON INDEXED OPTIONS

### *A. Section 162(m) and "Phony" Performance Pay*

The main tax advantage of traditional options over indexed ones derives from Section 162(m). A product of populist concerns about soaring executive pay, this rule disallows a publicly-traded firm's deduction for compensation exceeding one million dollars. Yet the rule exempts performance-based pay.<sup>6</sup> The goal of this exception is either to encourage such pay or, a cynic might say, to render the measure toothless. Both traditional and indexed options qualify as performance-based, and so the deduction for either type of option is not limited.<sup>7</sup>

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<sup>5</sup>Tax has not previously been offered as an explanation for the indexed option puzzle. My focus on tax is unlikely to surprise Professor Levmore, who says: "I can count on my commentator to pursue the tax angle and intuitions." See Saul Levmore, *Puzzling Stock Options and Compensation Norms*, at 12 n. 19.

<sup>6</sup>See Section 162(m)(1) ("In the case of any publicly held corporation, no deduction shall be allowed under this chapter for applicable employee remuneration with respect to any covered employee to the extent that the amount of such remuneration for the taxable year with respect to such employee exceeds \$1,000,000.") The rule applies to the chief executive officer and to the four other most highly compensated employees. See Section 162(m) (3) (defining "covered employee"). The term "applicable employee remuneration" does not include any remuneration "payable solely on account of the attainment of one or more performance goals" if procedural requirements are satisfied. Section 162(m)(C).

<sup>7</sup>For the typical "nonqualified" option, the employer has a deduction, and the employee has income when the option is exercised, based on the spread between the exercise price and the value of the stock. See Section 83 and Treas.

(continued...)

However, a traditional option includes value that is not really performance based, but is treated as such for tax purposes. In particular, traditional options include a bet on the market as a whole.<sup>8</sup> For example, the option might give an executive the right to buy stock for the current price of \$100. If the stock appreciates to \$110, the executive earns ten dollars – even if the rest of the market doubles, so that a 10% return is not impressive. With a traditional option, even poor performers profit in a bull market. In contrast, an indexed option does not offer this windfall: executives are rewarded only for outperforming the benchmark (e.g., competitors or the market as a whole). Thus, while traditional and indexed options both contain a firm-specific bet, traditional options *also* include a valuable

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<sup>7</sup>(...continued)

Reg. 1.83-7. However, the taxable event is the grant date if the option has a “readily ascertainable fair market value,” a condition that the regulations render extremely rare. “Incentive stock options” are subject to different rules, which are discussed below in Part I.B.

<sup>8</sup>As Professors Johnson and Tiang have shown, a single traditional option is worth three times as much as a single indexed option on plausible assumptions. See Shane A. Johnson and Yisong S. Tiang, *The Value and Incentive Effects of Nontraditional Executive Stock Option Plans*, 57 *J. Fin. Econ.* 3 (2000) (an indexed option is worth \$13.56 and a traditional option is worth \$40.35, assuming an at the money exercise price of \$100, volatility of .20, and a risk-free rate of 8%, and a dividend yield of 2%). The difference between the two is the bet on the market as a whole. Indeed, a traditional option is comparable to an indexed option paired with an option on the market as a whole. For instance, assume that the traditional option authorizes purchase of the stock for \$1300 (the current price). A similar economic return is also offered by two securities: an indexed option entitling the executive to buy stock for the current value of the S&P 500 (which is currently \$1300); and an option to buy the S&P for \$1300. To make the two alternatives perfectly equivalent, a “knock out” feature should be added to the indexed option, such that it makes no payment when the S&P option is out of the money. In addition, loss on the indexed option would have to be “netted” against gains on the S&P option in some cases. For a discussion of this netting effect, see *infra* note 17.

market bet that is not really performance based, but still qualifies as such for tax purposes.<sup>9</sup>

*1. Nonperformance Pay in Disguise: Three Pay Packages*

As an illustration of this point, three alternative pay packages are considered for an executive whose market value is \$10 million per year. To preserve its tax deduction, the firm cannot offer more than \$1 million in cash.<sup>10</sup>

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<sup>9</sup>The regulations and conference report treat options as “performance based,” without requiring indexation. See Treas. Reg. 1.162-27(e)(2)(vi) and examples 9 through 11; see also Conference Committee Report, reported in CCH Federal Tax Reporter, at 21,82. The exercise price must be no less than the stock price on the grant date. See Treas. Reg. 1.162-27(e)(2)(vi) and examples 9 through 11. Cf. Marvin A. Chirelstein, *Federal Income Taxation* (7<sup>th</sup> ed. 1994) (legislative history of Section 162(m) “apparently regards ‘performance’ as an absolute rather than a comparative measure of executive success”).

<sup>10</sup>Recent empirical studies confirm that firms respect the \$ 1 million cap. For instance, one study of 376 firms documented that most responded to enactment of Section 162(m) by qualifying top executive pay as performance related. Peter Woodlock & Joseph W. Antenucci, *Update: Corporate Responses to Executive Compensation Deductibility Limits*, Tax Notes, oct. 13, 1997, at 221. See also Todd Perry & Marc Zener, *Pay for Performance? Government Regulation and the Structure of Compensation Contracts* (June 2000) (unpublished manuscript posted on SSRN) (“[W]e find that after 1993 the salary growth rate is significantly smaller for firms near or above the million-dollar threshold. We also find that most firms reducing salaries to a level at or below one million dollars do so in response to 162(m). On the other hand, these salary reductions do not lead to lower total compensation.”); Nancy L. Rose & Catherine Wolfram, *Regulating Executive Pay: Using the Tax Code to Influence CEO Compensation* (MIT Working paper 00-24) (September 2000) (unpublished manuscript available on SSRN) (finding that cash salaries cluster around \$1 million, with growth in compensation concentrated in option grants and other performance based payments); Brian J. Hall & Jeffrey B. Liebman, *The Taxation of Executive Compensation*, NBER Working Paper 7596 (March 2000) (“We did find that the million dollar rule led companies to substitute performance-based pay for salary. But our evidence suggests that this substitution was quite modest . . .”). Preserving the deduction under Section 162(m) reportedly has public relations benefits, as well as tax benefits. See Perry & Zener, *supra*, at 8 (citing survey by  
(continued...)

Thus, the remaining \$9 million -- or 90% of the pay package -- must be offered through options, which could be indexed or traditional.<sup>11</sup>

Traditional options have two potential advantages. First, \$9 million of traditional options conveys far less firm-specific risk than \$9 million of indexed options – indeed, about half as much, since traditional options also include a valuable market bet.<sup>12</sup> Of course, some firm-specific risk is needed to produce useful incentives. Yet if too much is imposed, undiversified executives could

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<sup>10</sup>(...continued)

*Investor's Business Daily* which indicates that 87% of firms surveyed intended to implement Section 162(m)-related changes for positive shareholder relations).

<sup>11</sup> The firm could also include a performance-based bonus, but this alternative is ignored for simplicity's sake. As discussed below, for the bonus to qualify as performance-based, it must also present real firm-specific risk.

<sup>12</sup>As Professors Johnson and Tiang have shown, the indexed option grant will be almost twice as sensitive to changes in the stock price as a traditional grant of equivalent value. See Johnson & Tiang, *supra* note 8, at (delta of indexed grant is 93% larger than delta of traditional grant).

demand an unduly high premium.<sup>13</sup> Second, as Professor Levmore emphasizes, too much firm-specific risk could induce the executive to take foolish gambles.<sup>14</sup>

If the point is to reduce the level of firm-specific risk, traditional options are not the only way. Instead, the firm could offer a *smaller* grant of indexed options (e.g., \$4.5 million) and more cash (e.g., \$5.5 million).<sup>15</sup> Yet because of Section 162(m), the firm could not deduct \$4.5 million of cash, and thus would owe an extra \$1.5 million of tax.<sup>16</sup>

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<sup>13</sup>Executives are undiversified because their human capital is tied to firm performance. The size of the premium will depend upon their risk preferences and the rest of the executive's portfolio. Too much risk is imposed if the premium rises more than the added productivity benefits from intensifying the incentive. See Brian J. Hall & Kevin J. Murphy, Optimal Exercise prices for Executive Stock Options, AEA Papers and Proceedings 209 (2000); see also Lisa K. Meulbroek, The Efficiency of Equity-Linked Compensation: Understanding the Full Cost of Awarding Executive Stock Options (undiversified executive's subjective valuation of equity compensation will be lower than diversified investor's valuation, leading to deadweight loss when such compensation is used). In response, executives theoretically could seek diversification in the derivatives market. If such hedging with derivatives is feasible, the firm should not pay a premium for accepting firm-specific risk and, of course, no useful incentives would be created. Yet tax and securities law impede such hedging, as should contractual limitations imposed by the firm. See David M. Schizer, Executives and Hedging: The Fragile Legal Foundation of Incentive Compatibility, 100 Colum. L. Rev. 440 (2000).

<sup>14</sup>As Professor Levmore notes, indexed options encourage executives to take risk, even more than traditional options do. Risk-promoting compensation is helpful in some cases, since executives tend to be more risk averse than diversified shareholders. Yet too much promotion of risk could lead to risks with negative present value.

<sup>15</sup>See Levmore, *supra* note 5, at 26 n. 54 (noting that incentive compatibility of traditional options can be replicated through cash and indexed options). This package has the advantage of filtering out unwanted market risk and providing useful incentives even in a bear market.

<sup>16</sup>Loss of \$4.5 million dollar deduction would cost the firm \$1.575 million,  
(continued...)

The tax appeal of traditional options, then, is that they allow a reduction in firm-specific risk (and thus in performance pay) while still preserving the firm's deduction. Even so, these options impose two offsetting costs: First, the executive must bear general market risk.<sup>17</sup> In addition, these options provide less effective incentives in a falling market, a factor that may prove increasingly important in coming years. To compensate the executive for these costs, the firm must share some of the \$1.575 million of tax savings. For instance, the grant can be increased from \$9 million to \$10 million. In some cases, a relatively modest premium will suffice. Market risk in the options is acceptable if the executive would have invested in the market anyway.<sup>18</sup> Likewise, the risk of being undercompensated in

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<sup>16</sup>(...continued)  
assuming the 35% federal corporate tax rate applies.

<sup>17</sup>Even those who *want* market risk would rather get it by investing cash salary in S&P options. If this market bet is embedded in a traditional option, profits can be offset by firm-specific losses. Yet such “netting” would not occur if the executive received S&P options (or cash used to purchase them) and separate indexed options. To see the difference, compare two scenarios. First, assume the executive receives a traditional option to buy stock for its current market price of \$1300 (which is also the current value of the S&P 500). What if the firm stock price remains at \$1300, even though the S&P 500 increases to \$2300? The executive has no profit. In contrast, assume the executive receives an indexed option to buy stock for the current value of the S&P, and also uses cash to buy a separate at-the-money S&P call option with an exercise price of \$1300. On the assumed facts, the executive nets a \$1000 profit on the S&P option. Even though the stock underperformed the S&P by \$1000, the executive has no *loss* on the option (other than the salary foregone to get it). Unlike in the traditional option, this \$1000 underperformance *does not cancel out* the \$1000 profit on the S&P option.

<sup>18</sup>In addition, the return on the underlying stock, and thus on the traditional option, should already include a premium for market risk. Thus, an extra premium is more likely to be demanded for firm-specific risk (which cannot be diversified  
(continued...))

a falling market is less daunting if executives expect to be made whole ex post, for instance, through repricing of existing grants or larger future ones. The three pay packages are compared in the following Table:

TABLE 1: COMPARISON OF THREE PAY PACKAGES

Pay Package	Firm-Specific Risk	Nondeductible Portion
\$1 million cash \$9 million indexed option	Intense concentration	0
\$1 million cash \$9 million traditional option	Less intense	0
\$5.5 million cash \$4.5 million indexed option	Less intense (like \$9 million traditional option)	\$4.5 million cash

*2. Section 162(m) Cannot Be The Whole Story*

Thus, Section 162(m) inadvertently favors traditional options over indexed ones – a distortion that justifies repeal of this measure. Even so, Section 162(m) is only a partial explanation. Indexed options were rare before this rule was enacted in 1993. In some cases, the tax benefit to the firm may be less than the nontax cost to the executive (e.g., extra market risk in a bear market). Moreover, the rule

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<sup>18</sup>(...continued)  
away). See Meulbroek, *supra* note 13 (emphasizing “loss of diversification cost” associated with firm-specific risk).

should have less influence for firms that are subject to a low tax rate.<sup>19</sup> In addition, Section 162(m) cannot explain why less senior executives (not subject to the rule) receive traditional instead of indexed grants. Finally, other compensation is not entirely performance-based, but still qualifies as such under Section 162(m). For instance, cash bonuses could be based on lax “performance” standards (e.g., sales of at least 80% of last year’s volume). A problem with this alternative, though, is that the rule requires a meaningful chance of failing the standard.<sup>20</sup> Yet such risk is precisely what the parties may be trying to avoid.<sup>21</sup>

### ***B. Indexing Incentive Stock Options***

A second tax constraint is that so-called incentive stock options (“ISOs”) arguably cannot be indexed. ISOs offer capital gain treatment to the executive,

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<sup>19</sup>On the other hand, the deduction from options comes in future tax years (i.e., when options are exercised) and so a firm may be less certain, ex ante, of being in a low bracket.

<sup>20</sup>See, e.g., 1-162-27(e)(2)(i) (pay is not performance based unless performance goal “outcome is substantially uncertain at the time the compensation committee actually establishes the goal”).

<sup>21</sup>Professor Calvin Johnson has observed a tax inefficiency in any option that is settled with stock (whether traditional or indexed): After the option is exercised, the executive will hold stock; unlike debt, stock generates no deductions to the firm. See Calvin H. Johnson, *Stock Compensation: The Most Expensive Way to Pay Future Cash*, 52 S.M.U. L. Rev. 423, 442 (1999). Yet this problem is fixed if, at the same time, the firm borrows to repurchase shares from investors. In fact, firms commonly hedge option grants with such leveraged equity repurchases. Cf. Haim A. Mozes & Steven B. Raymar, *Granting and Hedging Employee Stock Options: A Tax Motivation and Empirical Tests* (unpublished manuscript posted on SSRN). The result is essentially the same as if the firm borrowed money to pay executives in cash (e.g., on an indexed stock appreciation right), which is the approach Professor Johnson recommends.

albeit at the cost of no deduction for the issuer.<sup>22</sup> For the option to qualify as an ISO, the “option price” must not be “not less than the fair market value of the stock at the date such option is granted.”<sup>23</sup> This language can plausibly be read as permitting indexed options as long as, on the grant date, the index is at least as valuable as the stock price.<sup>24</sup> However, meeting this test on the grant date is not sufficient under the regulations: The “option price” -- which is defined as the price *actually paid* on the option<sup>25</sup> – “may be determined in any manner so long as *the minimum price possible* under the terms of the option cannot be less than the fair market value of the stock at the date of grant.”<sup>26</sup> An indexed option cannot satisfy this condition because the exercise price on an indexed option *could* fall below this minimum value *at some point* during the life of the option (e.g., as the index falls).<sup>27</sup>

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<sup>22</sup>Specifically, the executive owes no tax upon exercising the option and will report capital gain from selling the stock as long as the stock is held at least one year from the date of exercise and two years from the option grant date. Exercise of the option can trigger alternative minimum tax, though. See Barbara J. Raasch & Judith L. Rowland, *Stock Option Planning*, 77 *Taxes* 39

<sup>23</sup>See Section 422(b)(4).

<sup>24</sup>For instance, assume that the stock is worth \$100, the S&P 500 is at \$1,300, and the option’s exercise price is 1/13 of the S&P 500. Under this reading of the statutory language, the option could be an ISO. Professor Levmore apparently reads the language in this way. See Levmore, *supra* note 5, at 10.

<sup>25</sup>See Treas. Reg. 1.421-7(e)(1) (defining option price as “the consideration in money or other property which, pursuant to the terms of the option, is the price at which the stock subject to the option *is purchased*”) (emphasis added).

<sup>26</sup>Prop. Treas. Reg. 1.422A-2(e) (emphasis added).

<sup>27</sup>In defense of indexed options, one might read this language to require  
(continued...)

Even so, the significance of this tax constraint on indexed ISOs should not be overemphasized. The statutory language arguably permits ISOs to be indexed, and there is no policy reason to disfavor indexation. As a result, the Treasury should be willing to change the regulation. Yet to my knowledge, no one is lobbying for this reform. Stakes are low, in any event, because ISOs are relatively uncommon. The tax savings to the executive (i.e., the maximum tax bracket of 39.6% minus the long term capital gains rate of 20%, or 19.6%) is usually less than the tax cost to the employer (35%).<sup>28</sup> As a result, these options are tax-advantaged only for firms in low tax brackets. (Note, though, that these are precisely the firms that would be less influenced by Section 162(m)). Even in this

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<sup>27</sup>(...continued)

only that the minimum price, as of the grant date, cannot be less than the fair market value of the stock on the grant date. In other words, one could read the phrase “on the grant date” to refer to the entire sentence, and not just the immediately preceding language “fair market value of the stock.” Yet this reading inconsistent with the definition of “option price” as the price actually paid (and not the price that hypothetically would be paid on the grant date). See Treas. Reg. 1.421-7(e)(1). In addition, this reading yields bizarre results. What if the exercise price is equals the stock price on the grant date but is preset to decline thereafter (e.g., by a dollar a day until it reaches zero)? Tested on the grant date, this option would qualify as an ISO. Yet this is precisely the kind of option that is not supposed to qualify. Indeed, the predecessor regime for “restricted stock options” explicitly required that “the option price must be fixed or determinable at the time the option is granted” and generally disallowed “variable price options.” See 1.421-1(d)(2).

<sup>28</sup>See Myron Scholes & Mark A. Wolfson, *Taxes and Business Strategy* (1992).

context, the size of ISO grants is strictly limited.<sup>29</sup> Thus, the need to qualify for ISO status is at most a partial explanation for the scarcity of indexed options.

## II. ACCOUNTING

The conventional view is that financial accounting favors traditional options by not expensing them on the firm's income statement.<sup>30</sup> Professor Levmore questions the importance of this accounting difference. Investors in an efficient market should ignore accounting conventions, he notes, and thus should prefer a better incentive to padded earnings.

On the other hand, when the Financial Accounting Standards Board recently sought to expense option grants, firms hired lobbyists and spent political capital to preserve the accounting treatment. Real resources are also devoted in

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<sup>29</sup>The underlying shares, in aggregate, cannot be worth more than \$100,000 in a given year.

<sup>30</sup>Thus, no expense is recorded in the body of the income statement when the option is granted or exercised. Traditional options qualify for this treatment only if the exercise price is at least as high as the stock price on the grant date. Under a 1995 reform, the option's grant date value (but not subsequent changes in value) must now be reflected in a footnote on the income statement. In contrast, because indexed options are treated as "variable" options, their expense is essentially marked-to-market in the body of the income statement.

other contexts to enhance earnings.<sup>31</sup> If accounting really has no significance, as academics often suggest, why the fuss?

Since sophisticated parties often behave as if accounting is significant, it is worth considering reasons why they may be correct. First, information can be costly. To measure the true cost of options, investors must value them not only on the grant date, but also over time (i.e., information the accounting statements do not supply). Periodic revaluations are costly. Indeed, economists have been reluctant to undertake this effort in a related context: Studies of the link between pay and performance usually ignore post-grant-date fluctuations in the value of

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<sup>31</sup>For instance, firms spend real resources to issue (tax deductible) debt that will be treated as equity for accounting purposes. See e.g., Ellen Engel et al., *Debt-Hybrid Securities*, 37 *J. Accounting Res.* 249 (1999) (studying MIPS and other securities treated as debt for tax purposes but not for rating agency and accounting purposes; noting that firms incur extra expenses totaling approximately 4% of offering price, or \$10 million, to secure better accounting treatment for otherwise comparable securities). Likewise, firms have stopped engaging in certain hedging transactions because such transactions would introduce volatility in their accounting earnings under the new accounting rule for derivatives, FAS 133. See David Schizer, *Frictions as a Constraint on Tax Planning* (unpublished manuscript on file with author). See also Douglas A Shackelford & Terry Shevlin, *Empirical Tax Research in Accounting*, *J. Accounting & Econ.* (forthcoming 2000) (describing studies of tradeoff between accounting and tax reduction in use of LIFO, compensation, depreciation, income shifting, capital structure, acquisitions, etc.).

equity compensation.<sup>32</sup> Since economists find these computations daunting, it would not be surprising if investors do as well.

Of course, *some* investors should be willing to bear this cost if they could profit from superior information. For instance, assume that unsophisticated investors, misled by accounting conventions, bid up the price of a given security. In a well functioning market, sophisticated investors, who have done enough research not to be fooled, should do short sales that return the price to an appropriate level.<sup>33</sup> Yet sophisticated investors will not take this step unless they expect the rest of the market, eventually, to follow them. If they expect unsophisticated investors to continue to rely on accounting numbers, less arbitrage will be supplied.<sup>34</sup>

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<sup>32</sup>A notable recent exception is the insightful study by Brian Hall and Jeffrey Liebman. As they put it, “[i]t is worth stating from the outset why our results differ from previous findings. With regard to the large literature that indicates that salary and bonus elasticities are small, our findings differ simply because previous estimates ignored changes in the value of stock and stock options, which account for virtually all of the sensitivity.” See Hall & Liebman, *supra* note 4, at 655.

<sup>33</sup>A short sale is a bet that the market will decline. The short seller sells borrowed property, hoping to buy it later for a lower price.

<sup>34</sup>An analogy may be drawn to the “noise trader” literature. The existence of speculative bubbles or panics is puzzling in an efficient market. Instead, we would expect sophisticated investors to arbitrage these price swings. For instance, if unsophisticated investors (or “noise” traders) are paying too much for tulips or Internet stocks, sophisticated investors should engage in short sales that yield a profit once the bubble bursts and, indeed, should help it to burst. Why, then, do bubbles ever occur? The “noise trader” literature contends that sophisticated investors will do these short sales only if they expect the market to decline in the near term. If there is doubt about when (or whether) the noise traders will recognize their error, arbitrage becomes very risky, and less of this service is

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This is not to say that accounting alone explains the lack of indexed options, although the role of accounting warrants further study.<sup>35</sup> I agree with Professor Levmore that it is useful also to seek explanations more consistent with a well-functioning market.

### III. NONCONFLICTING FORTUNES

Professor Levmore offers a two-step argument. First, indexed options are not appropriate for all executives. His reason is that these options can induce excessive risk-taking and thus can be given only to executives who are readily monitored. (As a friendly amendment, he might add that Section 162(m) discourages indexed grants to some highly compensated executives.) Second, a firm will resist giving indexed options to a *subset* of executives. The problem, he argues, is that pay of different employees could be negatively correlated, violating the norm of “nonconflicting fortunes.” In a falling market, for instance, indexed option holders could prosper. Yet colleagues holding traditional options would not.

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<sup>34</sup>(...continued)

supplied. See generally J. Bradford De Long, et al., The Size and Incidence of the Losses from Noise Trading, 44 J. Fin. 681 (1989); J. Bradford De Long, et al., Noise Trader Risk in Financial Markets, 98 J. Pol. Econ. 703 (1990); Andrei Shleifer & Lawrence H. Summers, The Noise Trader Approach to Finance, J. Econ. Persp., Spring 1990, at 19.

<sup>35</sup>For one thing, we might expect firms that are less concerned about accounting to implement indexed options. For instance, cable firms are said to be evaluated based on the number of subscribers, rather than on accounting earnings. Yet to my knowledge cable firms have not rushed to implement indexed options.

While this argument has much to commend it, two concerns come to mind. First, are negative correlations in pay as rare as he suggests? For instance, employees often compete for the same promotion.<sup>36</sup> Likewise, division-heads may be paid for division-specific performance, with one division doing well while others do not. Second, is this really a norms story? Instead, as Professor Levmore acknowledges, straightforward efficiency concerns may be at work. In avoiding negative correlations in pay, the firm may simply be building team morale and avoiding inter-employee conflict.

The more general point is that, in designing compensation packages, firms consider factors other than the two – incentives and employee risk-aversion – emphasized in the finance literature on indexed options. For instance, it may be helpful to explain the CEO’s large pay package by saying it is performance-based, even if this is not entirely the case. Thus, the ability of traditional options to offer nonperformance pay “in disguise” — a feature with tax advantages, as discussed above — may also facilitate dealings with unions, regulators, and even shareholders, although sophisticated investors should not be fooled. In addition, as Professor Kahan notes, compensation committees may not want to be the first to adopt a novel method of compensation because of “conformity” norms.<sup>37</sup> Furthermore, indexation raises the choice of a suitable benchmark. If the executive

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<sup>36</sup>Professor Levmore acknowledges this point. See Levmore, *supra* note 5, at 25 n. 52.

<sup>37</sup>See Marcel Kahan, *Economics and Law, Networks and Norms: An Analysis of the Incentive Structure of the Corporation* 77.

must outperform competitors, which ones? What if the firm is a conglomerate? What about competitors that are not publicly traded? If the benchmark is a particular industry, instead of the market as a whole, executives have incentive to imitate<sup>38</sup> or scuttle competitors, even if these efforts do not advance their own shareholders' interests.<sup>39</sup> Likewise, if the industry is the benchmark, the executive is not credited (or penalized) for the choice of *which industry* the firm should be in. For instance, a typewriter manufacturer might outperform other typewriter manufacturers, but managers arguably *should be* penalized for failing to sell computers. On the other hand, if the benchmark is the entire market, managers would be rewarded (or penalized) for being in a "hot" (or "dead") sector, a result driven in part by luck. In addition, managers in high "beta" firms could profit in a rising market (i.e., as the stock predictably rises *more* than the general market), while managers in low beta firms would profit in a falling market (i.e., as the stock predictably falls *less* than the market).<sup>40</sup>

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<sup>38</sup>Cf. Paul A. Gompers & Josh Lerner, *The Venture Capital Cycle* (1999) (noting that when venture capitalists are evaluated on a relative basis, they may respond by imitating each other's portfolios to avoid falling behind).

<sup>39</sup>Professors Aggarwal and Samwick take the point one step further. They argue that collusion among rival firms can advance shareholder (although not societal) interests. Indexed options are avoided because they would impede such collusion. See Rajesh K. Aggarwal & Andrew A. Samwick, *Executive Compensation, Strategic Competition, and Relative Performance Evaluation: Theory and Evidence*, 6 *J. Fin.* 1999 (1999). Yet this theory bears only on the choice not to index against industry competitors. The theory does not explain the absence of indexation against the market as a whole.

<sup>40</sup>Beta describes the sensitivity of a stock to general movements in the market. Stocks with high betas are very sensitive, and thus go up (and down)  
(continued...)

More generally, the appeal of indexed options is not as straightforward as the finance literature suggests. Professor Levmore makes this case elegantly and persuasively. Norms may play a role, along with accounting, a range of governance concerns, and the tax constraints emphasized here.

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<sup>40</sup>(...continued)  
more than the general market.