The Non-Option: Understanding the Dearth of Discounted Employee Stock Options

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THE NON-OPTION: UNDERSTANDING THE DEARTH OF DISCOUNTED EMPLOYEE STOCK OPTIONS

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David I. Walker

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The Non-Option: Understanding the Dearth of Discounted Employee Stock Options

Forthcoming, Boston University Law Review (2009)

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February 23, 2009

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The Non-Option: Understanding the Dearth of Discounted Employee Stock Options

Abstract

U.S. companies are highly sensitive to the tax and accounting treatment of compensation arrangements. For more than fifty years, congressional tax writers and the accounting profession have singled out discounted or “in-the-money” employee stock options, options with exercise prices less than the fair market value of the underlying stock at grant, for special, disadvantageous, treatment relative to non-discounted options. Today we observe no discounted options, but instead commonly observe a second best compensation solution – contemporaneous grants of both stock and non-discounted options to individual employees of U.S. public companies. Given the ability to work around the barriers to explicit discounting in this fashion, this article explores whether the regulatory distinction between discounted and non-discounted options makes sense.

The stated legislative rationales for rules discriminating against explicitly discounted options are weak, reflecting a dichotomous view of equity compensation divided between discounted and non-discounted options, when, in fact, option design is a continuum. By contrast, this article sets forth a novel tax policy rationale for forcing firms to bifurcate in-the-money long-term incentive pay arrangements into discrete grants of stock and non-discounted options. In short, doing so precludes the unwarranted expansion of preferential option tax treatment to deeply discounted options resembling stock.
# Discounted Employee Stock Options

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I. INTRODUCTION

Corporate compensation arrangements are coming under increasing scrutiny. Regulators are concerned not only with how much corporate executives and key employees are paid, but with how they are paid.\(^1\) Effective regulation requires that we fully understand the driving forces behind firm choices regarding compensation. When it comes to the design of equity compensation, two of the most important driving forces are tax and accounting rules.\(^2\)

For the last two decades, equity compensation has dominated high-level pay in corporate America, and, until quite recently, stock options comprised the bulk of that equity pay.\(^3\) But these have not been just any stock options. Almost all compensatory options issued by U.S. firms have been “at-the-money” options, options issued with an exercise price equal to the fair market value of the company’s stock on the date of the grant. Discounted or “in-the-money” options, options with exercise prices less than the price of the underlying stock at grant, have been rarely observed, and today are never seen. This is not a surprise. For more than fifty years, congressional tax writers and the accounting profession have singled out discounted options for special, disadvantageous, treatment relative to non-discounted options. The primary purpose of this article is to explore whether this persistent distinction makes sense.

The short answer is yes, but not for the exact reasons that led to the rules discouraging discounted options in the first place. This article argues that the distinctions the tax writers drew between these instruments, to the extent they can be discerned from the legislative histories, were misconceived, reflecting a false dichotomy between discounted and non-discounted options. The accounting distinction, on the other hand, was based on a valid concern regarding valuation, a concern that I argue is more pressing in the tax sphere.

Until about five years ago, the primary impediment to issuing discounted options was an accounting rule. Under this rule, discounted options resulted in a charge against earnings; non-discounted options did

\(^1\) For a very timely example, note the requirement in the recent Wall Street bailout rules that, at companies receiving “exceptional” government aid, executive compensation in excess of $500,000 per year consist of restricted stock that will not become unrestricted or “vest” until the government loans are repaid. See, e.g., Mark Maremont & Joann S. Lublin, Loopholes Sap Potency of Pay Limits, WALL ST. J., Feb. 6, 2009, at C1.


\(^3\) See Kevin J. Murphy, Executive Compensation, in HANDBOOK OF LABOR ECONOMICS 2485, 2515 (Orley Ashenfelter & David Card eds., 1999) (discussing trends in CEO pay and the growing dominance of options in the 1990s); Brian J. Hall & Kevin J. Murphy, The Trouble with Stock Options, 17 J. ECON. PERSPECTIVES 49, 52 (2003) (documenting the extensive use of options at “new economy” companies).
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not.\(^4\) This rule was an unintended consequence of the accounting profession’s skepticism regarding the use of option pricing models to value compensatory options several decades ago.\(^5\) But this rule was revised in 2005, leveling the accounting playing field for options.

However, just as the accounting distinction was being eliminated, the tax distinction became much more important. Under new deferred compensation tax rules enacted in 2004 and codified in IRC § 409A, recipients of discounted options are taxed when their options become exercisable or “vest”, and they face an additional 20% penalty tax. Recipients of non-discounted options do not pay tax until they exercise their options and face no penalty tax.\(^6\) Section 409A effectively takes discounted options off the table at U.S. companies. Why does § 409A contain this distinction? The legislative history in this specific instance is silent, but the distinction has become routine in tax. It dates back to the 1950s and is found in the current incentive stock option (ISO) rules\(^7\) and the rules governing the deductibility of senior executive pay,\(^8\) in addition to § 409A. The distinctions in the tax code appear to reflect a persistent misconception regarding stock options, an idea that discounted and non-discounted options are different in kind rather than simply different in degree.\(^9\)

By contrast, economists recognize that equity compensation instruments form a continuum ranging from zero strike price “options”, known to non-economists as restricted stock, to far out-of-the-money options. Moreover, theorists have demonstrated that in many cases the best option design, from a standpoint of optimizing incentives and risk, would be a discounted option.\(^10\) However, given the rules discouraging

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\(^4\) See Acct. Principles Bd., Opinion No. 25, Accounting for Stock Issued to Employees (1972) [hereinafter APB 25]; see also infra Part III.A.5.

\(^5\) See infra Part III.B.1. In brief, the accounting professional did not believe that the fair value of options could be adequately valued. Thus, APB 25 required that only the current, cash value, known as intrinsic value, existing at grant be expensed, which produced no accounting expense for non-discounted options that by definition have zero intrinsic value at grant.

\(^6\) This tax regime applies only to non-statutory stock options. As discussed infra Part III.A.3, some compensatory options qualify as incentive stock options (ISOs) under IRC §§ 421 & 422. Taxation of ISO gains is deferred until the sale of the underlying shares and the gains are taxed at preferential rates. Options that do not qualify as ISOs are known as non-qualified stock options (NQSOs) and are taxed as outlined here in accordance with IRC § 83 and Treas. Reg. § 1.83-7. The large majority of options issued by U.S. firms are NQSOs. See infra note 159.

\(^7\) See IRC § 422(b)(4) (defining an ISO, inter alia, as an option with an exercise price not less than the fair market value of the employer’s stock at grant).

\(^8\) See Treas. Reg. § 1.162-27(e)(2)(vi) (creating a safe harbor for non-discounted options only); see also infra Part III.A.4.

\(^9\) For example, the legislative history behind the precursors to the ISO rules draw a false distinction between non-discounted options, which are viewed as creating incentives, and discounted options, which are viewed as compensatory. In reality, all options include both incentive and compensation elements. See infra Part III.B.2.

\(^10\) See infra Part II.C.2.
explicitly discounted options we do not observe them. However, what we do observe, increasingly, are grants of both non-discounted options and restricted stock to the same executives in the same year. For example, of 200 large public company CEOs whose 2007 compensation was detailed by the New York Times in April 2008, 150 received stock grants within the fiscal year, 145 received non-discounted option grants, and 116 (58% of the total) received both.\textsuperscript{11}

The popularity of combinations of non-discounted options and stock, which I dub synthetic in-the-money options, is an important part of this analysis for two reasons. First, it indicates that there is significant demand among U.S. companies for long-term equity pay \textit{packages} that are effectively in the money. This fact suggests that regulations discouraging (today effectively barring) firms from explicit discounting may be distorting compensation design and reducing the efficiency of pay packages. On the other hand, if synthetic in-the-money options have properties that are very similar to explicitly discounted options, the ability to replicate explicit discounting through these combinations places a limit on the efficiency cost of the discriminatory rules.\textsuperscript{12}

In a latter part of this article, I explore the fungibility of explicit and synthetic discounted options.\textsuperscript{13} The bottom line is that the two are quite good, but not perfect substitutes. This finding suggests that there probably is some efficiency loss in blocking the use of explicitly discounted options. If there were no better justification than regulators’ discomfort with these instruments, I would argue for the elimination of the tax rules distinguishing between discounted and non-discounted options. (Recall that the accounting playing field is now level.)

However, there is a better justification that has not been discussed in the legislative history or in the academic literature, and it is a tax justification. Although restricted stock and non-discounted options represent points along an economic continuum, they are not taxed consistently. Restricted stock is generally taxed when it vests; non-discounted options are taxed at exercise.\textsuperscript{14} Both tax regimes represent deviations from the ideal of grant-based or accrual taxation, but the

\textsuperscript{11} See Executive Pay: A Special Report, N.Y. Times, Apr. 6, 2008, Sunday Business, at 10-11. Stock grants include conventional time-vested restricted stock, performance-vested restricted stock, and performance shares, which are economically equivalent to performance-vested restricted stock. Option grants include both conventional time-vested options and performance-vested options as well as stock appreciation rights (SARs). These instruments are described more fully in Part II.

\textsuperscript{12} At the limit, if explicit and synthetic ITM options are perfect substitutes, rules discouraging explicit discounting would not create inefficiencies.

\textsuperscript{13} See infra Part V. In essence, I assume that combinations of stock and non-discounted options represent a second best compensation solution given obstacles to explicit discounting.

\textsuperscript{14} See IRC § 83 and discussion Part III.A.1 infra. I refer here to non-qualified stock options. The difference between the taxation of restricted stock and ISOs is even greater and is discussed in Part III.A.3 infra.
option regime represents the greater deviation.\footnote{Although I do not intend to reopen the question of the tax advantage of equity compensation here, this article adds to a growing body of work on the economics of deferred and equity compensation taxation. See Daniel I. Halperin, \textit{Interest in Disguise: Taxing the “Time Value of Money,”} 95 YALE L.J. 506 (1986); David I. Walker, \textit{Is Equity Compensation Tax Advantaged?}, 84 B.U. L. REV. 695, (2004); Michael S. Knoll, \textit{The Tax-Efficiency of Stock-Based Compensation}, 103 TAX NOTES 203 (2004); Ethan Yale, \textit{Investment Risk is Important When Assessing the Tax Benefit of Deferred Compensation} (Working Paper, 2007); Daniel Halperin & Ethan Yale, \textit{Deferred Compensation Revisited}, x TAX NOTES 939 (2007).} Why do we allow optionees to defer tax until exercise? The reason, I think, is pragmatic. Unlike publicly traded stock, options are difficult to value accurately prior to exercise and the valuations of options that are made for accounting and disclosure purposes are highly manipulable.\footnote{The vesting date valuation problem actually lies along a continuum as well. It is most severe for non-discounted options and becomes less and less acute as discounting increases, becoming negligible when one reaches restricted stock. See \textit{infra} Part III.C.2.}

Suppose discounted options were treated for tax purposes just like non-discounted options. Instead of granting restricted stock that would be taxed at vesting, firms could issue deeply discounted options that would be taxed at exercise, deferring all income from the pseudo-stock compensation until exercise. One way to prevent that result would be to tax deeply discounted options like stock, instead of like non-discounted options, but the courts have declined to follow that approach.\footnote{See C.I.R. v. Lo Buie, 351 U.S. 243 (1956) (respecting the option characterization of a discounted option); see also \textit{infra} Part III.A.1.} IRC § 409A represents another solution, effectively preventing firms from granting options in the economic continuum between restricted stock and non-discounted options, forcing firms to bifurcate in-the-money pay packages into combinations of stock, taxed at vesting, and non-discounted options, taxed at exercise.\footnote{Of course, a third approach would involve fundamental reform of equity compensation taxation to achieve the accrual tax ideal. Until that happy day arrives, however, there is merit in limiting the spread of the preferential option tax regimes to encompass deeply discounted options resembling restricted stock.}

In a sense, the accountants were right all along to be concerned about valuing compensatory options. However, I believe their concern is more pressing in the realm of tax than accounting.

But how important is the tax issue economically? What would be the cost to the public fisc of permitting firms to issue explicitly discounted options taxed at exercise? And how does this cost compare to the efficiency loss resulting from forcing firms to satisfy their demand for in-the-money pay packages with synthetic discounted options? My suspicion is that the tax benefits of the status quo regime outweigh the efficiency costs, but this article can only address these questions qualitatively. Its contribution lies in demonstrating that § 409A and the other tax and former accounting rules serendipitously serve(d) an important tax policy role in limiting the preferential option tax regimes.
to the most deserving cases, non-discounted options that are difficult to value prior to exercise; in exploring the transmutability of explicit and synthetic in-the-money options; and in demonstrating the tension between the tax benefits and potential efficiency costs.19

II. EQUITY COMPENSATION PRACTICE AND THEORY

This article is concerned with equity compensation arrangements – devices that explicitly link compensation to share price performance with the intent, in most cases, of enhancing alignment between employee and shareholder interests and facilitating the recruitment and retention of key employees. This part briefly reviews equity compensation practices at U.S. firms and some of the theory bearing on the use of equity pay. It attempts to establish two points before undertaking the tax analysis in Part III. First, firms demand in-the-money (ITM) pay packages, a demand which at this point we will assume can be met with either discounted options or combinations of non-discounted options and stock.20 Second, use of ITM pay packages is consistent with finance theory.

A. Equity Compensation Instruments

Long-term equity pay arrangements are typically described as falling into one of two discrete categories – option-like instruments or deferred stock instruments.21 In the discussion that follows, “options” should be read to include conventional time-vested employee stock options;22

19 My analysis is related, but somewhat orthogonal to the literature on taxation and financial product innovation. One theme of articles such as Alvin C. Warren, Jr., Financial Contract Innovation and Income Tax Policy, 107 HARV. L.REV. 460 (1993) and Jeff Strnad, Taxing New Financial Products: A Conceptual Framework, 46 STAN. L.REV. 569 (1994) is that instruments that appear to be different, but aren’t, should be taxed in the same way to preclude arbitrage. My project deals with a financial instrument, employee stock options, for which we have a special tax regime as a result of administrability concerns. The goal here should be to prevent the spread of this preferential tax regime to instruments that appear to be similar, deeply discounted employee stock options, but that really aren’t, at least along the dimension that justifies the special tax regime.

20 The transmutability of these instruments is explored in Part V.


22 Employee stock options generally become exercisable, or vest, in installments, often ratably across the period beginning on the first anniversary of the grant and ending on the fourth anniversary of the grant. See FREDERICK W. COOK, supra note 21, at 14 (providing data indicating vesting schedules of three to five years for 96% of the executive stock options analyzed). If employment is terminated prior to vesting, options generally are forfeited.
performance-vested stock options, which add a performance criterion to vesting in addition to the traditional retention criterion;\(^\text{23}\) and stock appreciation rights (SARs), which are contracts that are economically equivalent to stock options. Options, of course, provide the holder with a right, but no obligation, to purchase shares of stock at a pre-determined strike or exercise price.\(^\text{24}\) Thus, the defining feature of an option is that the payoff is based on the positive difference, if any, between the share price at exercise or settlement and the strike price of the instrument. If the share price on a potential exercise date fails to exceed the strike price, the option provides zero payout.

As discussed below, the strike prices of almost all compensatory options issued by U.S. firms are set equal to the fair market value of the company’s stock on the date of the option grant. This is known as an at-the-money (ATM) option. An option with a strike price less than fair market value at grant is a discounted or in-the-money (ITM) option. An option with a strike price in excess of fair market value at grant is known as an out-of-the-money or, sometimes, a stretch option. The positive difference at any time between the strike price and the value of the underlying stock is labeled the option’s intrinsic value, and the difference, positive or negative, is often referred to as moneyness.

In the deferred stock category, we observe conventional time-vested restricted stock that becomes nonforfeitable and unrestricted once a period of continued employment has passed;\(^\text{25}\) performance-vested restricted stock;\(^\text{26}\) and performance shares (fka phantom stock). Performance shares are economically equivalent to performance-vested restricted stock.\(^\text{27}\) Participants in performance share plans are entitled to

\(^{23}\) As an example, in 2007 the CEO of Home Depot received an option grant that does not vest unless the company’s share price exceeds the grant date price by 25% for 30 consecutive trading days. See Home Depot, Proxy Statement (Form DEF 14A), at 32 (Apr. 11, 2008).

\(^{24}\) The strike price of employee stock options is almost always a fixed price specified at grant. A few firms have experimented with indexing strike prices to a basket of competing stocks or to a broad measure of the stock market, such as the S&P 500, with the idea of focusing the option payout on firm-specific performance rather than market movements generally. See Alfred Rappaport, New Thinking on How to Link Executive Pay with Performance, HARV. BUS. REV. 91, 101 (Mar. – Apr. 1999).

\(^{25}\) Restricted stock awards may vest in installments or “cliff vest” on a single date. As in the case of options, most senior executive stock awards vest on a three to five year schedule. See FREDERICK W. COOK, supra note 21, at 14.

\(^{26}\) Performance-vested restricted stock is analogous to performance-vested options. For example, in 2007, Moody’s granted restricted stock to senior executives that vests relatively slowly, or relatively quickly, depending on growth in the company’s annual operating income. See Moody’s Corporation, Proxy Statement (Form DEF 14A), at 33-34 (Mar. 19, 2008).

\(^{27}\) The difference between the two devices is that restricted stock is granted at the time of the award and is forfeited if the shares fail to vest, while performance shares are not issued until performance criteria are met. But this difference is not significant economically. For example, under either type of plan, participants may be entitled to dividends.
receive shares (or the cash value equivalent) at the end of a specified period, often three years, but the number of shares actually delivered is a function of some measure of company performance, such as absolute or relative return on equity, earnings growth, etc. In the discussion that follows, restricted stock (performance-vested or conventional) and performance shares will be referred to as deferred stock, restricted stock, or sometimes simply stock.

B. The Mix of Stock and Options in Executive Pay Packages

This article is not concerned solely with executive compensation, but as a result of the SEC’s proxy disclosure rules, we have much more information on senior executive pay than we have on the pay of junior executives and rank and file employees. Moreover, while senior executives generally receive more equity pay than other employees and while equity pay usually constitutes a larger fraction of executive pay packages, option moneyness and other design features tend to be consistent through the ranks. Thus, this section describes executive equity pay practice both as a matter of independent interest and as a proxy for corporate equity pay practices generally.

Explicitly discounted employee stock options have been rare historically and have recently disappeared entirely. In a study of options granted to CEOs of 1000 companies in 1992, Kevin Murphy found that only 3% were issued in the money. In its most recent study of compensation practices at the 250 largest companies included in the S&P 500 Index, Frederick W. Cook & Co. found no instances of discounted options. While a few firms issue out-of-the-money options, almost all executive options are issued at the money.

However, contrasted with the lack of diversity in option moneyness is an increasing diversity in the mix of stock and options granted to executives, which yields a broad diversity in the effective moneyness of

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28 Northern Trust Corporation’s fiscal year 2007 performance share awards are typical. Each participant was assigned a target number of shares. If the company achieves average three year earnings per share (EPS) growth of 10%, 100% of the target shares will vest at the end of three years. If EPS growth is between 8% and 10%, a fraction of the shares will vest. If EPS growth exceeds 10%, a multiple of target shares, up to 125% at 12% average EPS growth, will vest. See Northern Trust Corp., Proxy Statement (Form DEF 14A), at 46 (Apr. 15, 2008).

29 Public companies rarely issue unrestricted stock to their employees.

30 Professor Murphy provides data demonstrating that CEOs receive a greater fraction of their pay in the form of equity compensation than do subordinate executives. See Kevin J. Murphy, Stock-Based Pay in New Economy Firms, 34 J. ACCT. & FIN. 129, 132 (2003). Although similar data is not available for rank and file employees, it is widely recognized that the trend generally continues as one moves downward through the ranks.

31 See Murphy, supra note 3, at 2509.

32 See FREDERICK W. COOK, supra note 21, at 6.

33 See id. at 6, 7; Murphy, supra note 3 at 2509.
equity compensation. Executive equity pay in the late 1990s was dominated by options, with stock grants playing a relatively modest role, but recent data indicates the growing importance of stock grants.\textsuperscript{34}

Equity pay received by the top five executives of S&P 500 companies in 2006 is portrayed in Figure 1 below.\textsuperscript{35} Each observation represents one executive, and the vertical axis indicates the fraction of equity pay consisting of stock and options by ex ante value. 18% of these executives received a conventional option, a performance-vested option or an SAR grant in 2006, but received no stock grant. 21% received conventional time-vested restricted stock, performance-vested restricted stock, or performance shares, but received no option grant. Strikingly, however, 51% of the executives received both a stock and an option grant in 2006, generating pay packages that were effectively in the money. 10% of the executives received no equity compensation grants during the fiscal year.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{Fig_1_Mix_of_Stock_and_Options_in_2006_Employees_Pay_Packages.png}
\caption{Mix of Stock and Options in 2006 Executive Pay Packages}
\end{figure}

\textsuperscript{34} See David I. Walker, \textit{The Evolving Composition of Executive Equity Compensation: Theory and Evidence} 13 (Working Paper, Jan. 2009) (documenting a shift from an aggregate ratio of option to stock compensation for S&P 500 executives of more than 4 to 1 in the late 1990s to about a 3 to 2 ratio in favor of stock in 2006 and 2007).

\textsuperscript{35} The source of this data is Standard & Poor’s Compustat database, which extracts data from corporate proxy filings. Generally, firms report compensation data for five executives. However, in some cases data is supplied and coded by Compustat for a greater or lesser number of executives.
The economic correspondence between 1) grants of both stock and non-discounted options and 2) grants of explicitly discounted options is important in evaluating the efficiency cost of rules discouraging the latter. This correspondence is explored in detail in Part V below. The take-away point here, however, is that, although explicitly discounted options are off the table, many U.S. executives are receiving equity pay packages that are effectively in the money.

C. Discounted Options from the Perspective of Finance Theory

The empirical data reviewed in the previous section are consistent with corporate finance theory. Finance theory teaches that 1) deferred stock and option compensation actually represent points along an economic continuum and 2) in some situations, optimal equity compensation would consist of discounted options, or combinations of stock and non-discounted options. This section briefly reviews the relevant theory.

1. The Compensatory Stock Option Continuum

Although practitioners, commentators, and regulators tend to think of equity pay as being neatly divided into stock and options, it is widely recognized in the corporate finance literature that traditional time-vested restricted stock is equivalent to an option with a zero exercise price and that equity compensation can be viewed as a continuum running from restricted stock to far out-of-the-money options.36 The option continuum is portrayed in the following figure.

![Figure 2: The Compensatory Stock Option Continuum](image)

```
<table>
<thead>
<tr>
<th>Option Exercise Price:</th>
<th>Zero</th>
<th>&lt;100% of Grant FNV</th>
<th>&gt;100% of Grant FNV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usual Label:</td>
<td>Restricted Stock</td>
<td>In-the-money option</td>
<td>Out-of-the-money option</td>
</tr>
<tr>
<td></td>
<td>100% of Grant FNV</td>
<td>At-the-money option</td>
<td></td>
</tr>
</tbody>
</table>
```

Absent tax and accounting concerns, finance theory suggests that firms wishing to compensate employees with equity pay would select the optimal point along the continuum to minimize agency costs and maximize profits.37

2. Optimal Compensation and Equity Pay Design

Equity pay packages are designed to provide both compensation and incentives, and optimizing the design of equity pay involves a tradeoff. On the one hand, firms want to provide high-powered incentives to encourage employees to work hard and to take on risky projects.38 As one moves to the right along the continuum portrayed in Figure 2, the sensitivity of pay to stock price performance increases and the incentives become more high-powered.39 On the other hand, pay packages have to be mutually acceptable, and employees, who cannot easily diversify, apply large discounts to high-powered incentive arrangements that provide very risky pay, creating a gap between the cost of such pay arrangements to shareholders and their value to employees.40 The optimal pay arrangement balances incentive generation with risk bearing costs.

The optimal design of these contracts has been studied extensively by corporate finance researchers.41 The following description barely scratches the surface of this literature but should be sufficient for placing the material that follows in context.42

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38 Executives and other employees, whose financial and human capital generally is over-invested in their companies, tend to disfavor risky projects relative to diversified shareholders. See Brian J. Hall, *Six Challenges in Designing Equity-based Pay*, 15 J. APPLIED CORP. FIN. 21, 29 (2003).

39 The sensitivity of option value to stock price movements is denoted as option delta. The effect of moneyness on option delta will be explored in greater detail in Part V.


41 Although this section considers equity compensation within an optimal contracting framework, it should be noted that there are other possible explanations for the prevalence of equity-based pay in the U.S. executive suite, including the accounting preference for ATM options discussed infra Part III.A.5, as well as competing/complementary theories of how executive pay arrangements are determined. See Lucian A. Bebchuk et al., *Managerial Power and Rent Extraction in the Design of Executive Compensation*, 69 U. CHI. L. REV. 751 (2002) (proposing a managerial power theory of the executive pay setting process); Lucian Bebchuk & Jesse Fried, *Pay Without Performance* (2004) (same).

Ideally, employee, firm, and market characteristics should all be considered in determining the optimal moneyness of equity compensation. Numerous employee characteristics have been modeled by finance theorists, but risk aversion appears to be the most important, and certainly the most frequently modeled, individual trait. A highly risk averse optionee will more greatly discount options with more remote payoff prospects. Thus, as risk aversion increases, the optimal design shifts in the direction of stock. Firm characteristics that have been modeled revolve around the firm’s opportunity set, the marginal productivity of effort, desired riskiness of projects, and leverage. Firm leverage, for example, should be positively correlated with moneyness, as, all else being equal, increased leverage increases the risk of the option contract. The overall market environment affects optimal exercise prices in a similar fashion, i.e., market volatility should be positively correlated with moneyness.

Depending on firm and employee characteristics (and on model specifications), researchers have concluded that the optimal equity compensation design ranges from far in-the-money options (i.e.,

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Other characteristics that have been modeled include loss aversion, effort aversion, overall wealth, firm equity held, and outside investment opportunities. See, e.g., Anna Dodonova & Yuri Khoroshilov, Optimal Incentive Contracts for Loss-Averse Managers: Stock Options versus Restricted Stock Grants, 41 FIN. REV. 451 (2006) (loss aversion); Palmon et al., supra note 36, at 230 (effort aversion); Tian (2001), supra note 43 at 40 (effort aversion, overall wealth, firm equity held, and outside investment opportunities); Dittmann & Maug, supra note 43, at 308 (effort aversion); Feltham & Wu, supra note 36, at 6 (effort aversion).

44 See, e.g., Tian (2001), supra note 43, at 32; See also Hall, supra note 38, at 31 (noting that under plausible assumptions, the “value-to-cost discount for stock is two to three times less than that of” ATM options).

45 See, e.g., Lambert & Larcker, supra note 43, at 3.


47 See, e.g., Choe (2003), supra note 46, at 593; Choe (2001), supra note 46, at 229.

48 See, e.g., Choe (2003), supra note 46, at 593.

49 See Lambert & Larcker, supra note 43, at 3.
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restricted stock) to far out-of-the-money options. Many studies have concluded, however, that within a certain range of assumptions, in-the-money options with positive exercise prices would be optimal. These studies suggest that the ITM pay packages documented in the previous section are not accidental.

III. THE TAX AND ACCOUNTING TREATMENT OF EQUITY COMPENSATION – ARE DISTINCTIONS BETWEEN DISCOUNTED AND NON-DISCOUNTED OPTIONS JUSTIFIED?

This part analyses the disparate tax and financial accounting treatment of discounted options and is the core of the article. Given its length, it may be helpful to begin with a preview and a roadmap. As a further aid, the tax treatment of equity compensation is summarized in a table in the appendix.

The fundamental tax rules regarding equity compensation – IRC § 83 and the § 83-7 Treasury Regulations – and the case law make no distinction between discounted and non-discounted options. The same is true of the current financial accounting rules applicable to U.S. public corporations. However, as Section A of this part describes, several specific tax rules, including the recently promulgated rules and regulations under IRC § 409A, do distinguish between discounted and non-discounted options, as did the accounting rules in force prior to 2005. These specific rules arguably have distorted compensation design, blocking the use of explicit ITM options and channeling equity compensation into the distinct streams documented in Part II – stock grants and ATM options.

There is no suggestion in the legislative history that this result was achieved by design, and, as Section B describes, the stated rationales in the regulatory histories for the rules restricting option discounting reflect a false dichotomy between discounted and non-discounted options.

Although the stated rationales are unpersuasive, one can argue that rules discouraging grants of discounted options represent good tax

50 Compare Hall & Murphy, supra note 40, at 26-27 (concluding that “when existing compensation is adjusted, incentives are maximized through restricted stock grants rather than options”) and Dittmann & Maug, supra note 43, at 305 (reporting results of a model indicating that CEOs should receive restricted stock instead of options) with Lambert & Larcker, supra note 43, at 2 (“exercise price in the optimal contract is frequently far ‘out of the money’”).

51 See Tian (2004), supra note 43, at 1227 (“incentive-maximizing exercise price is typically greater than zero but less than the stock price”); Palmon et al., supra note 36, at 230-231 (simulations suggest that options are optimally granted in the money); Tian (2001), supra note 43, at 32 (arguing that the optimal option design ranges from at the money to deep in the money, i.e., restricted stock, depending on degree of risk aversion).
policy nonetheless, in that they prevent unwarranted expansion of the non-qualified stock option (NQSO) and incentive stock option (ISO) tax regimes in the direction of restricted stock.\textsuperscript{52} Section C lays out the argument.

In brief, the NQSO story is as follows: Under current law, equity compensation can be tax advantaged versus the accrual or cash compensation ideal. The tax advantage arises from the deferral of tax and increases with the period of deferral. For stock grants, tax is deferred until vesting; for NQSOs, deferral extends to exercise. Arguably, deferral of NQSO taxation beyond vesting is a pragmatic response to the difficulty of valuing option compensation prior to exercise and the potential that such valuations would be manipulated in self-serving ways. Taxation of stock grants at vesting raises no valuation or manipulation issues (at least with respect to public company issuers). Absent rules such as § 409A, firms could achieve more favorable NQSO taxation on instruments resembling restricted stock by issuing deeply discounted options instead. The crux of this argument is that the NQSO rules reflect a pragmatic accommodation for options that should not be extended to stock.

A similar story could be told about preserving the sanctity of the ISO rules, but in my view the ISO regime is less defensible than the NQSO regime to begin with. Thus, any expansion of the ISO regime would be regrettable in my view.

Finally, in Section C.4, I consider the qualitative impact of expanding the NQSO and ISO regimes to include deeply discounted options under current law.

**A. Tax and Accounting Treatment of Discounted and Non-Discounted Options**

The primary aim of this section is to document the disparate treatment of discounted options under the Internal Revenue Code and under pre-2005 GAAP. However, the taxation of restricted stock will become important later in the analysis. Thus, this section begins by describing the taxation of both stock and options under IRC § 83 and the § 1.83-7 regulations. As will be evident, these provisions, as well as § 409A, are aimed at reaching the appropriate tax result for compensation. The other tax provisions that I will discuss – § 162(m) and the ISO rules – serve other aims, at least in part. The accounting rules are intended to determine the appropriate amount and timing of book expense recognition related to equity compensation.

1. IRC § 83 and Treasury Regulation 1.83-7

\textsuperscript{52} As discussed \textit{infra} Part III.A.3, options qualifying as incentive stock options are afforded special, employee favorable, tax treatment. Options that do not qualify and are not taxed as ISOS are known as non-qualified stock options.
The starting point for analysis of the taxation of equity compensation is IRC § 83. That section provides that the value of property received in exchange for performance of services is includable in income when the property is transferable or no longer subject to a substantial risk of forfeiture.53 In the absence of a taxpayer election under IRC § 83(b),54 the application of § 83 to restricted stock is straightforward. Recipients of restricted stock are taxed, at ordinary income rates, on the value of their shares (less any amount paid for them) at vesting, i.e., when the shares are no longer subject to a substantial risk of forfeiture.55 The employer is entitled to a corresponding and contemporaneous deduction.56

Per IRC § 83 and Treasury Regulation § 1.83-7, recipients of NQSOs typically are taxed on the intrinsic value or option “spread” at exercise at ordinary income tax rates.57 The employer, again, is entitled to a corresponding and contemporaneous deduction.58 Option taxation is deferred until exercise even if the instrument vests at grant or vests in the interim between grant and exercise. Compared with stock awards, options permit employees to defer taxation beyond vesting and to control the timing of realization, between the contractual bounds of vesting and expiration.

IRC § 83 and Regulation § 1.83-7 make no distinction between discounted and non-discounted options. NQSO taxation occurs at exercise unless the option has a readily ascertainable fair market value (RAFMV) at the time of grant, in which case it would be taxed at grant.59 Unless the option is actively traded on an established market (for employee stock options virtually a null set), an option has a RAFMV at grant only if the option is transferable, the option is immediately exercisable, neither the option nor the underlying stock is subject to any other significant restrictions, and the option value is

53 IRC § 83(a).
54 If an election is made under IRC § 83(b), the fair market value of the property at grant, ignoring any restrictions that will lapse, over the amount paid, if any, is included in income in the year of the transfer.
55 Taxation occurs at vesting even if the shares are subject to a further contractual restriction on transfer. Under the Treasury Regulations, restricted property becomes includable in income when it becomes transferable or is no longer subject to a substantial risk of forfeiture, whichever occurs first. See Treas. Reg. § 1.83-1(a)(1) & -3(b). See also Sakol v. C.I.R., 574 F.2d 694 (2d Cir. 1978) (rejecting constitutional challenge to the application of § 83 to include full restricted stock gain at vesting in income despite restriction on transfer that continued for several years). However, if the sale of vested shares would trigger § 16(b) of the Securities Exchange Act, taxation is deferred until that restriction is lifted. See IRC § 83(c)(3).
56 IRC § 83(h).
57 Recall that intrinsic value or spread at any time is the difference between the fair market value of the underlying stock and the option’s exercise price.
58 IRC § 83(h).
59 Treas. Reg. § 1.83-7(a).
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Needless to say, few employee options meet all of these tests and are taxable at grant. Moreover, even if a discounted option met the first three tests, the fact that it was granted in the money would not necessarily mean that it had a RAFMV. As the regulations note, the total value of an option at any time includes both its intrinsic value and the value of the option privilege – the opportunity to benefit from further increases in stock price without risking capital.61

Although § 83 and the regulations fail to distinguish between discounted and non-discounted options, it is possible that a court might disregard the option label applied to a deeply discounted NQSO, treating the instrument as restricted stock, which would result in taxation at vesting. However, there is considerable judicial authority, going back at least to LoBue,62 respecting the option characterization and taxing discounted options at exercise.

Philip LoBue received discounted options on his employer’s stock in the 1940s.63 In litigation pre-dating the promulgation of IRC § 83, the Tax Court concluded that the options were non-compensatory and that the stock would be taxed like any other arm’s length bargain purchase, i.e., LoBue would take a cost basis in the shares purchased through exercise of the options and recognize gains when the shares were ultimately sold.64 The Supreme Court reversed but was split on the appropriate treatment. In dissent, Justice Harlan (joined by Justice Burton) argued that it was appropriate to tax LoBue on the option spread at grant, for the options that vested immediately and otherwise on the spread existing at vesting.65 Under Harlan’s scheme, presumably, the grant/vesting date spread would also be treated as basis; exercise would not be a taxable event; but the amount paid to exercise the option would be added to cost basis.66

60 Treas. Reg. § 1.83-7(b)(2). See also, Cramer v. C.I.R., 64 F.3d 1406 (9th Cir. 1995) (rejecting challenge to the 1.83-7(b)(2) regulation as an invalid interpretation of IRC § 83).
61 Treas. Reg. § 1.83-7(b)(3).
63 Reportedly, the exercise prices on some of LoBue’s options were about 25% of the grant date fair market value of the underlying stock, i.e., those options were about 75% in the money at grant. See Judith E. Alden & Murray S. Akresh, Using Equity to Compensate Executives, in EXECUTIVE COMPENSATION 67, 188 (Yale D. Tauber & Donald R. Levy eds., 2002).
64 See LoBue, 351 U.S. at 245-46.
65 See id. at 250-52.
66 See id. at 252 (Harlan J. concurring in part and dissenting in part) (stating “I would hold the granting [vesting] of the options to be the taxable event and would measure the income by the value of the options when granted.”)

Justice Harlan is not explicit, but his analysis implies that the intrinsic value or spread of the option at vesting would be the measure of compensation taxable as ordinary income. If so, his approach would mirror that of the ISO rules discussed below. For example, suppose a firm issues an at-the-money option that vests immediately. Under Harlan’s approach, the recipient would have zero compensation
The *LoBue* majority followed the Treasury’s practice of taxing compensatory options at exercise, consistent with other bargain purchases in the employment context. The majority noted that an option that had a RAFMV at grant, was transferable at grant, and (implicitly) was immediately exercisable, might result in grant date taxation, but those were not the facts of *LoBue*.

In the years since *LoBue*, its approach has been adopted by the Treasury in its regulations, and courts have followed quite literally, even in cases in which options were deeply discounted. Cases in which grant date taxation has been imposed are rare, but not nonexistent. In *Morrison v. CIR*, the Tax Court followed the regulations in holding that the receipt of an option was a taxable event. The option in that case was freely transferable and immediately exercisable, and neither the option nor the underlying stock was subject to significant restrictions. Moreover, because the fair market value of the underlying stock at grant was $300/share and the option carried a $1/share exercise price, the court concluded that the option had a RAFMV, i.e., $299.

Modestly, the court in *Morrison* respected the option characterization, but found that grant date taxation was dictated under the regulations. Arguably, the court could have reached the same result by disregarding the option characterization and considering the transaction effectively a grant of stock, taxable under the general rule of § 83. Given the precedents, however, it seems unlikely that a court

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*See id.* at 249. The Treasury’s general approach to compensatory bargain purchases goes back at least to 1923. *See T.D. 3435, 1923-1 C.B. 50.* However, that approach was not as uniform as the *LoBue* opinion suggests. *See LoBue*, 351 U.S. at 249 (“uniform Treasury practice since 1923 has been to measure the compensation … at the time the option is exercised”). Prior to 1950, in response to conflicting judicial decisions, the Treasury had twice reversed its position on the taxation of stock options and thus returned to exercise date taxation. *See President’s 1963 Tax Message: Hearings before the H. Comm. on Ways and Means* 88th Cong. 463 (1963) [hereinafter *President’s 1963 Tax Message*] (testimony of Hon. C. Douglas Dillon, Secretary of the Treasury) (providing a succinct history).

*See LoBue*, 351 U.S. at 249.

*See Treas. Reg. § 1.83-7; see also* John L. Utz, *Tax Mgmt. (BNA)*, Nonstatutory Stock Options A-8,9 (2001) (noting that *LoBue* “provided the framework” for the regulations, which, in addition, adopted the Court’s “readily ascertainable market value” phrasing).

*See, e.g.,* Graney v. U.S., 258 F.Supp. 383 (S.D. W.Va. 1966) (respecting option characterization of employee’s right to purchase stock for $25/share granted when the underlying stock was valued at $75/share); Victorson v. CIR, 326 F.2d 264 (2d Cir. 1964) (upholding option characterization of underwriters’ right to purchase for $0.001/share stock otherwise sold in a public offering at $0.50/share). To be sure, in each of these cases, the taxpayer was arguing ex post against its own ex ante option characterization.

59 T.C. 248 (1972).

*Id.* at 260.

*Id.* at 261.
would disregard option characterization unless the instrument was so deeply discounted as to be effectively equivalent to a grant of stock, and perhaps not even then.\textsuperscript{74}

2. IRC § 409A

IRC § 409A, enacted in 2004, modifies the tax treatment of discounted employee stock options in a fundamental way. Under § 409A, vested deferred compensation (defined broadly) that runs afoul of certain requirements is currently includable in income and subject to an additional 20% penalty tax.\textsuperscript{75} Congress enacted § 409A in an effort to combat what it viewed as improper deferrals of income for tax purposes, principally arrangements that provided individuals with security of future payment (such as offshore rabbi trusts) and/or sufficient control to allow them to minimize the risk of nonpayment (such as provisions permitting early withdrawal of deferred compensation with a penalty or “haircut”).\textsuperscript{76}

Although restricted stock and options could be viewed as providing for deferral of compensation, and hence as subject to § 409A, the regulations provide safe harbors for both instruments.\textsuperscript{77} However, the option safe harbor is narrowly drawn to exclude discounted options.\textsuperscript{78} As a result, while the provision has no affect on income inclusion

\textsuperscript{74} At one time, at least, the IRS was more concerned than the courts about the taxation of deeply discounted options. See Rev. Proc. 89-22, 1989-1 C.B. 843 (as amended by Announcement 89-42, 1989-13 I.R.B. 53) (announcing discounted options as a topic of study and suspending advance rulings pending published guidance). However, no published guidance was issued.

\textsuperscript{75} See IRC § 409A(a).

Section 409A has been a source of great consternation for the corporate bar. The cost of non-compliance is large, and the regulations implementing the provision are so extraordinarily detailed and complex that they ultimately “fail to provide effective guidance.” Michael Doran, \textit{Time to Start Over on Deferred Compensation}, 118 \textit{TAX NOTES} 1311, 1313 (2008) (recommending that the existing § 409A regulations be withdrawn and replaced with more focused guidance).

\textsuperscript{76} See H.R. REP. NO. 110-658 (2008) (modifying § 409A and discussing its purposes). Rabbi trusts (so named for an early beneficiary) are designed to facilitate deferral of tax on deferred compensation. A trust, when made irrevocable, provides protection to the participant by placing deferred compensation assets beyond the reach of an employer, but in order to avoid immediate taxation, those assets must remain subject to the claims of the employer’s general creditors. See Rev. Proc. 92-64, 1992-2 C.B. 422. Rabbi trusts were moved offshore in an attempt to maintain nominal creditor access while making discovery and actual access more difficult. With limited exceptions, the new rules make offshore rabbi trust assets immediately taxable.

\textsuperscript{77} See Treas. Reg. §§ 1.409A-1(b)(5)(i)(A) & 1.409A-1(b)(6)(i). There is no safe harbor, as such, for performance shares, but no income is includable under § 409A until the income is no longer subject to a substantial risk of forfeiture. As long as income inclusion under a performance share plan occurs at the time that the performance conditions are satisfied and the shares are delivered to the employee, these plans do not present a concern under § 409A.

\textsuperscript{78} See id. § 1.409A-1(b)(5)(i)(A)(1).
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associated with non-discounted options, under § 409A compensation arising from conventional discounted options would be included at vesting and subjected to a 20% penalty tax, regardless of when the options are ultimately exercised.\(^79\)

Of all the tax and accounting rules this article considers, § 409A is probably the measure that most strongly discourages explicit grants of ITM options.\(^80\) Section 409A essentially compels firms wishing to create in-the-money equity pay packages to bifurcate these packages into grants of stock and non-discounted options.

3. Statutory Stock Options

If holding period requirements are met, recipients of incentive stock options (ISOs) incur no regular income tax obligation at exercise, but instead pay tax at capital gains rates on gains from ISO transactions when they sell the underlying shares.\(^81\) From the recipient’s point of

\(^79\) Under § 409A, discounted options are considered deferred compensation. See id. § 1.409A-1(b)(5)(i)(C). Plans providing conventional discounted options do not comply with the provisions of § 409A because the holder controls the timing of realization. See IRC § 409A(a)(2) (listing permissible plan distribution events as including only termination, death, disability, a predetermined fixed date, change in control, and unforeseeable emergency). As a result, compensation arising from conventional discounted options would be includable when the income is no longer subject to a substantial risk of forfeiture, i.e., at vesting. See id. § 409A(a)(1)(A). And the penalty tax would apply. See id. § 409A(a)(1)(B). The measure of compensation is not specified in the statute and regulations on this point have not been promulgated, but presumably some measure of fair value at vesting would be employed.

Of course, another way of avoiding the harsh consequences arising from option discounting under § 409A would be to eliminate employee discretion over exercise timing. A European option that was exercised on a fixed date, say ten years from grant, would presumably satisfy § 409A and avoid accelerated taxation. Given the loss of discretion, however, it seems likely that employees would greatly discount European options.

\(^80\) See FREDERICK W. COOK & CO., supra note 21, at 6 (stating that “[d]iscount stock options have disappeared because there are adverse tax consequences under the new deferred compensation rules (IRC Section 409A)”).

\(^81\) See IRC § 421(a). This description assumes, of course, that the employee enjoys a gain. Unlike NQSO transactions, ISO transactions can result in losses, which are treated as capital losses.

Note that no gain goes untaxed under the ISO rules. The employee-level tax advantage versus NQSOs arises from conversion of ordinary income into capital gain. Assume, for example, that an option has a $100/share strike price, that the shares are worth $300 each at exercise, and that the stock is ultimately sold for $600/share. If an NQSO, the employee would recognize $200/share ordinary compensation income at exercise and $300/share capital gain on sale of the stock. If an ISO, the entire $500/share gain would be capital gain. The ISO regime also permits deferral of tax on options beyond exercise to the sale of the underlying shares, but this is only advantageous if option expiration is approaching and the optionee has a non-tax reason for holding the underlying shares post-exercise, such as minimum stock ownership guidelines. Note, however, that the spread on an ISO at exercise (the difference
view, this tax treatment beats that of NQSOs – the employee is able to defer tax beyond exercise and pay tax at what have generally been reduced capital gains rates. The employer, however, is not entitled to a tax deduction for an ISO and, thus, ISOs are not necessarily tax advantaged from a global (i.e., employee plus employer) tax perspective. In fact, at current top marginal individual and corporate tax rates, ISOs are inferior to NQSOs from a global tax perspective. However, if a firm faces a low effective marginal tax rate, perhaps because of accumulated losses, ISOs can be tax advantaged, and we often see start-up firms employing ISOs.

There are a number of rules that restrict the use of ISOs. One of these rules is that the exercise price of an ISO cannot be less than the fair market value of the underlying stock on the date of the grant. In other words, ISOs cannot be granted in the money.

4. IRC § 162(m)

IRC § 162(m) limits public company tax deductions for certain senior executive compensation to $1 million per executive per year. However, the statute provides an exception for performance-based pay, which is fully deductible. Generally, in order to qualify as performance based, an element of compensation must be payable solely as a result of the attainment of performance goals that are pre-established by an independent committee of outside directors, are included in a shareholder approved plan, and are certified as having been satisfied by the independent committee.

However, the regulations provide a safe harbor for stock options that deems options to be performance based if granted by the firm’s compensation committee in accordance with a plan meeting certain.
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minimal requirements. But there is another potential bar to reaching the safe harbor – the option may not be granted in the money. To be sure, this does not mean that ITM options and restricted stock cannot qualify as deductible performance-based pay, only that, in order to qualify, discounted options and stock must be subjected to specific performance criteria, whereas non-discounted options essentially qualify automatically.

To this extent, then, the contours of the § 162(m) safe harbor discourage the issuance of explicitly discounted options to senior executives. However, the effect of § 162(m) on discounted options should not be overstated. Today, given § 409A, discounted options are off the table in any event. Nonetheless, § 162(m) clearly represents another instance of tax rules discriminating against discounted options.

5. Corporate Financial Accounting

Prior to 2005, financial accounting for equity compensation was controlled by a standard issued in 1972 by the Accounting Principles Board (APB), a regulator that predated the present Financial Accounting Standards Board (FASB). Under the 1972 standard, firms were required to recognize as compensation expense the intrinsic value of an option on the date of grant. That expense was accrued ratably over the option vesting period, and at that point the books on the option were closed. There was no requirement to update the expense as the intrinsic value of the option fluctuated over time. As a result, no expense was recorded at any point for non-discounted options, because, by definition, these options had zero intrinsic value on the date of grant.

Although the intrinsic value method of accounting for option expense was inadequate, unlike some of the tax rules we have seen, it

89 Id.
90 IRC § 162(m) partially explains the increasing popularity of performance shares. As noted, these instruments are economically equivalent to performance vested restricted stock and, although they do not fall within a safe harbor, they are easily qualified as performance based within the regulations.
92 See APB 25, supra note 4, para. 10.
93 See id. para. 12.
94 The FASB attempted to rationalize equity compensation accounting in the 1990s, but they only succeeded in implementing an elective regime that effectively left the 1972 standard in place while requiring firms to include pro forma earnings statements reflecting “fair value” accounting for options in the footnotes to their financials. See FIN. ACCT. STD. BD., STATEMENT OF FINANCIAL ACCOUNTING STANDARDS NO. 123 (Oct. 1995). Fair value was and is defined as the value arrived at through use of the Black-Scholes-Merton option pricing model or another appropriate model.

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was not discontinuous. The method undervalued all equity instruments except for restricted stock. It incorrectly valued ATM options and out-of-the-money options equally (at zero). But along the continuum ranging from at-the-money options to restricted stock, the intrinsic value method resulted in a continuous, decreasing undervaluation of equity compensation expense.\textsuperscript{95} This accounting treatment discouraged firms from granting either discounted options or restricted stock and accounts, in part, for the boom in ATM options issued in the 1990s.\textsuperscript{96}

In 2004, the FASB promulgated a standard requiring all firms to expense the grant date fair value of all equity compensation instruments.\textsuperscript{97} This standard eliminated the accounting bias in favor of non-discounted options.\textsuperscript{98}

B. Stated Rationales for the Disparate Treatment of Discounted Options are Unpersuasive

What accounts for the disparate treatment of discounted options under the tax and accounting rules? Although the legislative histories behind the tax provisions should certainly be taken with a grain of salt,\textsuperscript{99} they seem a reasonable place to begin an exploration of the tax distinctions. Unfortunately, we will see that the stated legislative rationales are unpersuasive, reflecting a false dichotomy between discounted and non-discounted options, rather than an economic continuum. We will also observe, by taking the tax provisions chronologically, a general decline over time in the efforts taken to justify the disparate treatment, which might suggest path dependence, or more bluntly, that disparate treatment of discounted options has become an unthinking reaction in tax writing committees.

However, I will begin this section by reviewing the accounting story, which is somewhat clearer. The disparate treatment of discounted options under GAAP prior to 2004 apparently reflected limitations of technology and politics.

\textsuperscript{95} The value of an option at any time is the sum of the option’s intrinsic value and the value of the option privilege. The value of an ATM option is 100% option privilege. The value of restricted stock is 100% intrinsic value. The relationship of intrinsic value to option privilege between these poles is not linear, but it is continuous and monotonic. See Richard A. Brealey et al., Principles of Corporate Finance 577-581 (8th ed. 2006).

\textsuperscript{96} See David I. Walker, Financial Accounting and Corporate Behavior, 64 Wash. & Lee L. Rev. 927, 954-57 (discussing evidence).


\textsuperscript{98} This is not to suggest that the new accounting standard is ideal. See infra note 104.

\textsuperscript{99} See Michael Livingston, Congress, the Courts, and the Code: Legislative History and the Interpretation of Tax Statutes, 69 Tex. L. Rev. 819 (1991) (noting that tax committee reports are produced by congressional staff and Treasury experts rather than congressmen, but arguing that the same is true in tax of statutory language).
1. Corporate Financial Accounting

For many years, the majority view of the accounting profession has been that: 1) stock options are an element of compensation and should be recognized as an expense on the income statement, 2) ideally, the amount of the expense should be determined at grant when the options are transferred, and 3) conceptually, the amount of the expense that should be recognized is the fair market value of the option at grant. Since 2004, GAAP has reflected these precepts, and as a result, the accounting rules are neutral with respect to the intrinsic value of options at grant. But why wasn’t the playing field leveled earlier?

In part, the answer is technology. The accounting profession began grappling with this issue well before Black, Scholes, and Merton figured out how to value stock options in the early 1970s. In establishing the intrinsic value method of accounting for options in 1953, the Committee on Accounting Procedure (the regulator that preceded the APB, which preceded FASB) stated that “[a]lthough there is, from the standpoint of the grantee, a value inherent in a restricted future right to purchase shares at a price at or even above the fair value of shares at the grant date, the committee believes it is impracticable to measure any such value.” In 1972, when the APB essentially reaffirmed the 1953 standard, apparently a majority of the APB was of the same view. Of the eighteen members of the APB, only two dissented from the opinion on the basis that techniques were adequate to value non-discounted options and that the full grant date value of all options, not just intrinsic values, should be expensed.

It seems reasonably clear that the former accounting bias against discounted options was more technical than conceptual. The intrinsic value method of accounting for options was simply the best that the accountants could do before option valuation techniques were developed. Of course, there is a large gap in time between 1973, when the breakthrough papers on option valuation were published, and 2004, when FASB mandated model-based accounting for options. Why did 30 years pass before the fair value method of accounting for options supplanted the intrinsic method? Again, technology may be a partial

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100 See ACCT. PRINCIPLES BD., ACCOUNTING RESEARCH BULLETIN NO. 43, Ch. 13, Compensation, Section B- Compensation Involved in Stock Option and Stock Purchase Plans paras. 1, 10, and 11 (1953) (reprinted as App. B to APB 25) [hereinafter ARB 43] (expressing these views).

101 The breakthrough articles were Fischer Black & Myron Scholes, The Pricing of Options and Corporate Liabilities, 81 J. POL. ECON. 637 (1973) and Robert C. Merton, Theory of Rational Option Pricing, 4 BELL J. ECON. & MGMT. SCI. 141 (1973).

102 See ARB 43, supra note 100.

103 See APB 25, supra note 4, at 479-480 (discussing dissenting views of board members Bows and Gellein).
answer. As we will see in the next section, the Black-Scholes-Merton (BSM) model is not designed for employee stock options and its accuracy in that service is still debated. The larger answer, however, is politics. By the time the bulk of the accounting profession accepted the idea of using option valuation models to calculate compensation expense, option compensation had become so widespread and so intensive that publicly traded companies, particularly technology-related companies, feared the impact of the hit to earnings that would result from the change in methods and lobbied Congress and the FASB not to make the change.104

2. Statutory Stock Options

ISOs became a feature of the tax code in 1981, but the concept of a special tax regime applicable to certain options goes back to the restricted stock option rules of the 1950s. In the 1960s and 1970s, the Code featured qualified stock options. As we will see, however, each iteration has included restrictions on strike price discounts as a prerequisite for qualification for the special tax regime. But the rationales offered for distinguishing between discounted and non-discounted options in providing access to the special tax regime have been unpersuasive, perhaps reflecting an unsophisticated understanding of equity compensation arrangements.

In 1950, in proposing that ISO-like tax treatment be afforded to restricted stock options, the Senate Finance Committee argued that exercise date taxation of options impeded their use in creating incentives.105 The committee noted:

Since the employee does not realize cash income at the time the option is exercised, the imposition of a tax at that time often works a real hardship. An immediate sale of a portion of the stock acquired under the option may be necessary in order to finance the payment of the tax. This, of course, reduces the effectiveness of the option as an incentive device.106

104 See Patricia M. Dechow et al, Economic Consequences of Accounting for Stock-Based Compensation, 34 J. ACCT. RES. 1, 2-4 (1997) (describing the backlash created by the FASB’s proposal to require stock option expensing in the early 1990s). Note that interests opposing stock option expensing managed to delay implementation for over ten years after the FASB first officially proposed making the change. While I view the 2004 accounting standard as an improvement over the prior rule, I remain concerned about the manipulability of model-based option valuation, even for accounting purposes. See David I. Walker & Victor Fleischer, Book/Tax Conformity and Equity Compensation, ____ TAX L.REV. ____ (2009) (suggesting a mark-to-market approach to option expense recognition to reduce the potential for manipulation).


106 Id.
However, the Committee did not intend that taxation would be deferred for all employee stock options until the sale of the underlying shares. It attempted to draw a line between options that were granted for incentive purposes (worthy of special treatment) and those that were merely compensatory (unworthy). How could the two cases be distinguished? “Ordinarily,” the Committee reported, “when an option is used as an incentive device, the option price approximates the fair market value of the stock at … grant[].”\textsuperscript{107} If an option was discounted, it was presumed to be compensatory, although, in order to allow for pricing uncertainty with respect to unlisted stocks, options with strike prices at least equal to 85% of the fair market value of the stock at grant were allowed to qualify.\textsuperscript{108} The tax treatment of the granting company further reinforced the division between incentive and compensation. Because grants of restricted stock options were “regarded as incentive devices rather than compensation, no deduction [was] allowed the corporation.”\textsuperscript{109}

Of course, the distinction the Finance Committee attempted to draw between options granted to create incentives and those granted as compensation is spurious. All forms of equity compensation – including options in, at, and out of the money; restricted stock; and performance shares – both create incentives and provide compensation. To be sure, decreasing moneyness increases the sensitivity of the instrument to firm share price, but, as we have seen, optimal design is a function of many factors specific to a firm, its employees, and general market conditions.\textsuperscript{110} As a result, there is no a priori reason to think that a firm granting an option 50% in the money, or a combination of stock and non-discounted options, is any less interested in creating incentives than a firm granting only non-discounted options.\textsuperscript{111}

The same discontinuous view of the world was reflected when restricted stock options were replaced by qualified stock options in the early 1960s. The Kennedy administration advocated complete repeal of the restricted stock option regime, arguing that options were compensatory and should be taxed as consistently as possible with

\textsuperscript{107} Id.
\textsuperscript{108} Id. Under the restricted stock option rules, each dollar of gain on options granted with a strike price equal to at least 95% of the underlying stock’s fair market value on the date of the grant was taxed at long-term capital gains rates. If an option was granted with a strike price ranging from 85% to 95% of fair market value at grant, the difference between the strike price and 95% of fair market value was taxed as ordinary income on exercise and the rest of the gain taxed as long-term capital gain. See id.
\textsuperscript{109} Id.
\textsuperscript{110} See supra Part II.C.
\textsuperscript{111} To be fair, I should emphasize that options were not well understood by economists, let alone politicians, in the 1950s. The finance literature on employee stock options did not take off until after Black, Scholes, and Merton published their work on option valuation in 1973.
cash. The House Ways and Means Committee insisted, however, that the incentives provided by options benefited the economy as a whole, and therefore warranted special tax treatment. But the Committee recommended stricter pre-requisites. By 1963, the Committee had concluded that the rule allowing firms to set strike prices as low as 85% of the fair market value of the stock at grant was being abused, and raised the minimum strike price qualifying for special tax treatment to 100% of market in order to “decrease the compensatory nature of the existing stock option provision and to place greater emphasis on the employee’s efforts to improve his company’s business.”

In 1981, when qualified stock options were resuscitated and renamed ISOs, no real attempt was made to justify the pre-requisite that qualifying options not be granted in the money. There was initial disagreement between the chambers whether the 85% threshold of the restricted stock options regime or the 100%-of-market requirement of the qualified stock option regime should apply, but ultimately the latter was selected with no recorded discussion. The Senate Finance Committee report, which was adopted on this point, simply echoed the JCT report, which noted that the rules were “designed to encourage the use of stock options for key employees without reinstituting the alleged abuses which arose with the restricted stock option provisions of prior law.”

3. IRC § 162(m)

The § 162(m) safe harbor for non-discounted stock options is found in the regulations rather than the statute itself, but its contours and the

112 See President’s 1963 Tax Message, supra note 67, at 460-61 (testimony of Hon. C. Douglas Dillon, Secretary of the Treasury).
114 Id. at 65. Even so, the qualified stock option rules provided that options that were unintentionally discounted would not be disqualified, but that a penalty would be imposed to discourage intentional undervaluation. See id.
disparate treatment of discounted options were well fleshed out in the legislative history. As described in the conference report:

Stock options and other stock appreciation rights generally are treated as meeting the exception for performance-based compensation … because the amount of compensation attributable to the options or other rights received by the executives would be based solely on an increase in the corporation’s stock price…. Stock-based compensation is not treated as performance based if it is dependent on factors other than corporate performance. For example, if a stock option is granted to an executive with an exercise price that is less than the current fair market value of the stock at the time of the grant, then the executive would have the right to receive compensation on the exercise of the option even if the stock price decreases or stays the same. Thus, [such] options … do not meet the requirements for performance-based compensation.117

As in the case of the statutory stock option legislative history, this passage suggests a dichotomy in equity compensation that does not exist. It is certainly true, as far as it goes, that an executive can profit from a discounted option if the stock price is flat, while profits on non-discounted options require an increase in stock price. However, the suggestion that gains on the former are “dependent on factors other than corporate performance,” while gains on the latter are not, is clearly overstated. As is well understood, gains on traditional, non-discounted options are in large part due to market movements that are unrelated to specific corporate performance.118 It is for this reason that some commentators have suggested that the exercise prices of compensatory options be indexed to reduce the influence of market factors and focus option gains or losses on firm-specific performance.119

More generally, even if the lack of strike price indexing were not an issue, the passage reflects an artificial discontinuity at at-the-money options. To be sure, the expected payoffs on restricted stock and deeply in-the-money options are less sensitive to share price movements than the payoffs for at-the-money options. By the same token, however, at-the-money options are less sensitive to stock price performance than out-of-the-money options. It is, after all, a continuum. Thus, the claim that

118 See David M. Schizer, Tax Constraints on Indexed Options, 149 U. PA. L.REV. 1941, 1942 n.8 (2001) (suggesting that a traditional, non-indexed option be thought of as “an indexed option paired with an option on the market”).
DISCOUNTED EMPLOYEE STOCK OPTIONS

non-discounted options are “inherently performance-based”\(^{120}\) while restricted stock and discounted options are not is unsupportable.

4. IRC § 409A

Neither the legislative history nor the preambles to the regulations attempt to justify the disparate treatment of discounted options under § 409A. The Treasury regulations faithfully follow the legislative history in distinguishing between non-discounted options, which generally are not subject to § 409A, and discounted options, which are.\(^ {121}\) The conference report simply states without further explanation that

it is not intended that the term “nonqualified deferred compensation plan” include an arrangement taxable under section 83 providing for the grant of an option on employer stock with an exercise price that is not less than the fair market value of the underlying stock on the date of grant if such arrangement does not include a deferral feature other than the feature that the option holder has the right to exercise the option in the future.\(^ {122}\)

The conference report does not mention restricted stock, but the Treasury regulations separately exclude restricted property from the reach of § 409A, stating that “there is no deferral of compensation merely because the value of the property [received] is not includible in income by reason of the property being substantially nonvested…”\(^ {123}\)

C. Tax Policy Rationales for Discouraging Firms from Granting Discounted Options

If, as I have argued, the rationales for discriminating against discounted options found in the legislative histories are unpersuasive, is it time to eliminate disparities between in-, at-, and out-of-the-money options? Well, not so fast. This section elaborates the novel tax policy rationale for the disparate treatment of discounted options previewed above. In brief, forcing firms to bifurcate equity pay into discrete bundles of stock and ATM options is desirable as a matter of tax policy in that it blocks unwarranted expansion of the preferential NQSO and


\(^{122}\) H.R. REP. No. 108-755 at 735 (2004) (Conf. Rep.). The reference to a secondary deferral feature responds to attempts by optionees to defer option taxation beyond exercise, e.g., by converting the intrinsic value of an option into an unfunded, unsecured promise to pay further in the future.

\(^{123}\) Treas. Reg. § 1.409A-1(b)(6)(i).
ISO regimes to include deeply discounted options and, effectively, restricted stock.

On the other hand, this section also suggests that expansion of the NQSO and ISO regimes to include stock-like instruments would not likely be catastrophic for the public fisc. Directionally, limiting these regimes is good tax policy, but the magnitude of the benefit is debatable and it certainly would be difficult to quantify.

1. Equity Compensation Can Be Tax Advantaged

a. Restricted Stock and NQSOs

Most analysts have concluded that taxation under § 83 and § 1.83-7 provides a tax advantage for firms that compensate their employees with equity. The reason, in a nutshell, is that investment returns are or can be exempted from tax. There are several ways of portraying this effect. This is one.

I will assume, as is conventional, that an employee invests in the stock of her employer, either directly with after-tax cash compensation, or indirectly, through receipt of equity-based pay. First, consider a firm that is effectively tax exempt due to a large net operating loss (NOL) position. Suppose that instead of paying an employee in cash, it grants the employee restricted stock. Absent a § 83(b) election, the employee will not be taxed until the stock vests. Had the employee received cash, she would have been taxed immediately. As is widely recognized in the academic literature, under certain conditions the deferral of taxation is equivalent to imposing the tax initially, but exempting investment returns on the after-tax amount. What about...

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124 See Walker, supra note 15, at 755-57 (synthesizing the employee and employer taxation of equity compensation); Knoll, supra note 15, at 214 (finding that “over a range of circumstances” equity compensation is tax advantaged); see also Halperin, supra note 15 (seminal article on time value issues and taxation, including consideration of the tax efficiency of deferred compensation); but see Yale, supra note 15 (arguing that the tax benefit of deferred compensation should be viewed as only the avoided after-tax cost of financing the incremental investment made possible by deferral of the tax).

125 To the extent that a corporation’s tax deductions exceed its gross income in any given year, the net loss may be carried back two tax years and carried forward 20 years. IRC § 172(b).

126 See E. Cary Brown, Business-Income Taxation and Investment Incentives, in INCOME, EMPLOYMENT AND PUBLIC POLICY 300-316 (1948); Halperin, supra note 15. Equivalence depends on the assumption that tax rates remain constant. A familiar example of the Brown theorem is the economic equivalence between conventional IRAs and 401(k) plans that defer tax on investment income until retirement and Roth IRAs and 401(k)s that provide for tax-exempt earnings on after-tax contributions. However, equivalence in this case is undermined by the fact that the caps on contributions, while nominally the same, are effectively different. See Michael J. Graetz & Deborah H. Schenk, Federal Income Taxation: Principles and Policies 746 (5th ed. 2005).
the employer? It has extra cash on hand as a result of compensating the employee with stock, but any investment returns go untaxed because this employer is hypothesized to be effectively tax exempt.\textsuperscript{127}

Second, consider the other extreme, an employer paying tax at the maximum marginal rate. Now we have to consider the possibility that the taxation of investment returns is simply shifted from the employee to the employer who has cash freed up as a result of the decision to compensate the employee with equity. The analysis is quite complex, but we can be sure of exemption of investment returns at the employer level if the firm uses the freed-up cash to repurchase its own shares on the market at the time it grants stock to its employee, because, under IRC § 1032, firms are not taxed on gains or losses from trades in their own equity.\textsuperscript{128} Many firms manage the dilution resulting from equity compensation programs by repurchasing shares in this manner, and in this scenario, again, neither the employer nor the employee bears any tax on the investment return on the stock grant.\textsuperscript{129}

The analysis is analogous, but still more complicated, for NQSO compensation. Again, option compensation definitely results in exemption of investment returns in the case of loss firms and firms that perfectly hedge compensatory options.\textsuperscript{130} However, there is a key difference between stock and options. For stock grants, the deferral of income inclusion and potential exemption of investment returns lasts

As an example of the deferral/exemption equivalence in the present context consider the following: Employee A receives $100 cash compensation, pays tax of $40, and purchases company shares with the remaining $60. At time 2, the stock has doubled in value and A sells it for $120. A’s after tax cash is $120 less whatever tax is imposed on the $60 investment gain.

Employee B receives $100 worth of restricted stock at time 1. There is no tax at that point. At time 2 the stock has doubled in value to $200 and vests. B pays tax of $80 ($200 x 40%), and is left with $120 after tax, which is the same position that A would be in if we exempted from further taxation her investment return on her after-tax cash compensation.

\textsuperscript{127} It is important in any analysis of compensation taxation to consider the taxation of both the employee and employer. See Scholes et al., supra note 2, at 3.

\textsuperscript{128} If one assumes that corporate financing decisions and compensation decisions are independent such that firms ultimately repurchase from the market the same number of shares that are issued to employees via stock or option grants (or reduce planned issuances), the investment exemption analysis turns on repurchase (or forgone issuance) timing. If repurchases are made when shares vest or options are exercised and the freed up cash from equity grants generates a taxable return in the interim, substitute taxation would result. If equity grants are perfectly hedged by firms repurchasing shares at the time of the grants, there is no substitute taxation. See Walker, supra note 15, at 729-40. If, on the other hand, equity compensation increases equity capitalization because a firm is unwilling or unable to issue additional equity directly, it is very difficult to assess whether substitute taxation arises. Empirical evidence indicates that stock buybacks conducted in conjunction with equity compensation programs are common, although the timing of these buybacks varies. See id. at 743-48.

\textsuperscript{129} See id.

\textsuperscript{130} See id.
only until the shares vest. For options, the deferral/exemption extends until exercise, which could be several years later.

But this is not the end of the story. Exemption of investment returns is only advantageous if investment returns are positive. If returns are negative, exemption means the loss of a capital loss. As a result, in a tax system permitting full deductibility of losses and assuming no trading on inside information, the tax advantage of equity compensation would be quite limited on an ex ante basis. However, if one assumes that capital loss limitations on outside investments would have real bite and if one considers the fact that insiders generally outperform the market, so that the prospect of gain and risk of loss are not symmetric, equity compensation begins to appear significantly tax advantaged even on an ex ante basis. Moreover, on the reasonable assumption that investment returns are a function of the investment period, the additional deferral achievable with NQSOs heightens their tax advantage over restricted stock.

b. ISOs

I have already noted that ISO taxation is not advantageous relative to NQSO taxation from a global tax perspective if the employer’s marginal tax rate is equal to the statutory rate. Relative to NQSO taxation, the ISO regime converts ordinary compensation income for the employee into capital gain, but the cost is the complete loss of the employer’s tax deduction for compensation conferred. As Myron Scholes and his colleagues demonstrate, under current law and assuming that the optionee sells the stock received on exercise one year later, the breakeven corporate marginal tax rate is about 24%. If the effective marginal tax rate is greater than 24%, NQSOs are jointly tax advantaged; if less than 24%, ISOs are better. The key to the tax advantage of ISOs, however, is that use of the regime is elective. Presumably most employers issuing ISOs face a low or zero effective tax rate. In these cases, there is little or no offset against the

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131 One can think of capital income taxation as a partnership between the taxpayer and the government in which the two share in gains and losses. However, as in the case of some partnerships between natural persons, the government does not share equally in gains and losses on capital investments. See IRC § 1211 (limiting deductibility of capital losses); see also Leandra Lederman, The Entrepreneurship Effect: An Accidental Externality in the Federal Income Tax, 65 OHIO STATE L. J. 1401 (2004) (discussing asymmetry of capital gain and loss taxation).

132 See Yale, supra note 15.

133 See Walker, supra note 15, at 715-720.

134 See supra note 81 and accompanying text.

135 See supra note 82 and accompanying text.

136 See SCHOLES ET AL, supra note 2, at 230, tbl 8.4.

137 Corporate effective marginal tax rates exhibit significant variation. See, e.g., John R. Graham, Debt and the Marginal Tax Rate, 41 J. FIN. ECON. 41, 49 (1996) (simulating effective marginal tax rates for 11,000 Compustat firms in the years 1980
employee’s conversion of ordinary compensation income into capital gain, and the ISO regime is even further tax advantaged than the NQSO regime.

2. Pre-Exercise Taxation of Options is Problematic

Generally, compensation arising from restricted stock is taxed at vesting. Vesting date taxation would reduce the tax advantage of options, but, of course, neither the NQSO or ISO regime follows that approach. Rather, both systems adopt a “wait and see” attitude. Under the NQSO regime, we wait until exercise to tax gains; under the ISO regime, we wait until sale of the underlying shares. Arguably, difficulties of pre-exercise valuation contribute to the difference in the taxation of stock and non-discounted options.

This section describes why taxation of option compensation based on fair value prior to exercise is problematic. It also discusses the alternative of taxing options based on their intrinsic value at vesting. While this alternative is not perfectly consistent with the taxation of restricted stock, it has administrative advantages. Nonetheless, I argue that this approach is also problematic. Finally, this section notes that while pre-exercise valuation concerns might justify NQSO taxation, these concerns do not justify the ISO tax regime.

Throughout this section, “options” should be read as options at or near the money at grant. As I note in several places, valuation difficulties associated with deeply discounted options would be much less severe.

a. Pre-Exercise Taxation Based on the Fair Value of Options is Problematic

Theoretically, grant date taxation of the fair value of stock and options would eliminate any tax advantage of equity compensation relative to the accrual tax ideal. Less ambitiously, vesting date valuation

\footnote{Of course, formerly restricted stock held beyond vesting will have tax consequences, but the compensatory aspect of the transaction is complete and is taxed at vesting.}

\footnote{This section focuses on schemes in which option compensation would be fully taxed at vesting. Another possibility would be to tax option compensation partly at vesting and partly at exercise as a compromise between accuracy and administrability. However, such an approach would at best mitigate the considerable difficulties involved with taxing option compensation prior to exercise.}

\footnote{Just as the incentive properties of instruments ranging from restricted stock to non-discounted options are continuous and monotonic, the valuation difficulty of the range of instruments is continuous and monotonic. See infra note 155 and accompanying text.}
and taxation of compensation arising from options would eliminate the tax advantage of options over stock. However, as Victor Fleischer and I have argued, pre-exercise taxation of options utilizing current technology raises numerous concerns. Here I will focus on just two—valuation and manipulation.

Except for the case of a deeply in-the-money option, the intrinsic value of an option at any time represents only a fraction of the option’s total value. As a result, accurate determination of the fair value of non-deeply discounted options prior to exercise generally would require the use of an option pricing model, such as the BSM or binomial models that are used to value compensatory options under current GAAP. These models were designed for relatively short-term traded options. The models are not perfect in that service, but their imperfections are magnified when applied to long-dated employee options. In addition, the models must be adjusted to account for the non-transferability of employee options, and these adjustments can lead to overvaluation. In short, while these models may be sufficiently reliable to determine aggregate option cost and earnings adjustments firm by firm, they may not be sufficiently reliable to form the basis for taxing individual optionees.

Second, and perhaps more important, the results of these models are highly sensitive to firm-specific projections of stock price volatility, expected time to option exercise, and dividend yields. As a result, the valuations are highly manipulable. One analyst has determined that a firm seeking to maximize the grant date option value of an ATM option could reasonably select inputs and “report values almost double those reported by an otherwise similar firm seeking to undervalue its options.”

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142 See BREALEY ET AL., supra note 95, at 577.
143 See, e.g., Charles W. Calomiris, Expensing Employee Stock Options 38 (AEI Working Paper, Aug. 5, 2005), (suggesting that valuation errors may exceed 20% in 10% of the cases); Carol A. Marquardt, The Cost of Employee Stock Option Grants: An Empirical Assessment, 40 J. ACCT. RES. 1191, 1214 (2002) (finding that while an adjusted Black-Scholes model provided reasonable estimates of ex post option cost, on average, there was “significant variability in the amount of model error on an option-by-option basis”).
145 See Walker & Fleischer, supra note 104, at 35-37.
146 Mark Rubinstein, On the Accounting Valuation of Employee Stock Options, 2 J. DERIVATIVES 8, 17 (Fall 1995).
Suppose that employee inclusion and employer deductions for options were based on the fair value of the options at vesting as determined by a pricing model. Subsequent gain or loss would be capital gain or loss for the employee and would have no tax consequence for the employer. A firm in a large NOL position would be able to select model inputs that undervalue options, thus converting employee ordinary income into capital gain. The firm would suffer a reduction in its tax deduction for the options, but given the large NOL, the expected present value of that sacrifice might be small.\textsuperscript{147} On the other hand, if an employee faced a relatively low marginal tax rate on ordinary income, model-based taxation would allow a high marginal tax rate firm to overvalue options and maximize its deduction. The problem, of course, is that the opportunity to manipulate option valuation and the allocation of tax burdens would be essentially elective.

Accuracy and manipulation problems may explain why we do not attempt to tax the fair value of options at vesting consistent with the taxation of restricted stock.\textsuperscript{148} However, there are other alternatives to option taxation, such as intrinsic value taxation at vesting.

b. Pre-Exercise Taxation of Options Based on Intrinsic Value is Also Problematic

To some extent, the problems discussed above could be avoided by treating the \textit{intrinsic value} at vesting as the measure of compensation arising from an option. The difference between the fair market value of the underlying stock and exercise price of the option at vesting is readily observable and is not manipulable, at least in the case of public companies. To be sure, the intrinsic value will always be less than the fair value of the option.\textsuperscript{149} Thus, compared with fair value taxation at vesting...

\textsuperscript{147} For example, assume that the fair value of an option at vesting is $300, that the exercise price is $100, and that the shares ultimately are sold at $600. Fair value taxation at vesting would result in the employee recognizing $200 of compensation income at vesting and $300 of capital gain when the shares are sold. The employer would have a $200 deduction at vesting. However, if model inputs are manipulated to generate a $250 value at vesting, the employee would report $150 ordinary income and $350 capital gain. The employer would deduct $150.

\textsuperscript{148} Professor Halperin has proposed that a special tax be applied to the investment returns on non-qualified deferred compensation in order to achieve the same overall result as accrual taxation. \textit{See} Halperin, \textit{supra} note 15, at 539-550. If such a scheme could be effectively applied to equity compensation, the tax advantage of stock and option pay would be eliminated, and the tax policy argument I am making for forcing firms to bifurcate ITM pay packages into non-discounted options and stock would fall away. Unfortunately, however, as Halperin notes, one must calculate the value of compensation at grant in order to determine how much investment income should be subject to the special tax. \textit{See id.} at 544-49. For options, this brings us back to the accuracy and manipulation issues inherent in model-based valuation.

\textsuperscript{149} As discussed \textit{supra} note 95, the fair value of an option at any time is comprised of the option’s intrinsic value and the value of the remaining option privilege. For an option that is at or out of the money, option privilege constitutes

\[\text{Fair Value} = \text{Intrinsic Value} + \text{Option Privilege}\]
vesting, this intrinsic value method would convert employee ordinary income into capital gain. However, there would be an offset in that employer tax deductions would be reduced by the difference between the fair value and the intrinsic value at vesting.

If this method sounds quite like the current ISO rules, it should. It is also the method favored by Justice Harlan in *LoBue*.

Under this system, if an option had zero intrinsic value at vesting, the employer would receive no deduction, the employee would have no ordinary income, and all gains would be capital. Firms presumably would react to such a system much as they do to the current ISO regime. Those with low effective marginal tax rates would likely embrace it. At these companies, the conversion of employee ordinary income into capital gain would benefit recipients and come at little or no cost to the firm. Firms with high marginal tax rates would be unenthusiastic and would likely replace options with another form of compensation. As with today’s ISOS, for these firms the reduction in the corporate tax deduction would outweigh the benefit of converting a like amount of employee ordinary income into capital gain. Corporate effective marginal tax rates appear to exhibit significant variation.

As a result, an intrinsic value method of option taxation would still create a “heads you win, tails I lose” whipsaw for the government.

c. Difficulty of Pre-Exercise Taxation Does Not Justify the ISO Regime

While pre-exercise valuation and manipulation concerns might justify the tax treatment of NQSOs relative to restricted stock, these concerns do not justify the additional tax advantage of the ISO regime. Considered solely as a question of tax policy, the ISO regime seems regrettable and any potential expansion undesirable. As we have

100% of the fair value of the option. For a deeply in-the-money option or a modestly in-the-money option nearing expiration, the value of the option privilege becomes small relative to intrinsic value. See BREALEY ET AL, supra note 95, at 577-581.  

150 See supra notes 65-66 and accompanying text.  

151 See Graham, supra note 137, at 48-49.  

152 It is hard to know how much of this was recognized by the majority in *LoBue* which rejected Justice Harlan’s approach. It seems more likely that the Court simply resisted the idea of levying a tax before the fair value of the compensation could be reasonably measured. There is no discussion of the possibility of firms and employees engaging in tax planning with respect to compensation design in *LoBue*.

153 Alternatively, one could view the ISO regime as a tax preference or tax expenditure program – similar to preferences aimed at encouraging employer-provided health insurance or owner-occupied housing. See, e.g., STANLEY S. SURREY, PATHWAYS TO TAX REFORM: THE CONCEPT OF TAX EXPENDITURES (1973). In this case, the tax preference would be aimed at encouraging firms and employees to qualify options as ISOS, e.g., holding shares underlying ISOS for at least a year following exercise. IRC § 422(a). Viewing the ISO rules as a tax preference muddies the normative analysis, but in my view fails to justify the additional ISO tax advantage.
seen, as an elective regime, the ISO rules allow NOL firms to confer tax-advantaged compensation on their employees with no offsetting tax burden at the firm level. In addition, the ISO rules add complexity and the opportunity for firms that are poorly advised or that cater to their employees rather than their shareholders to get the ISO/NQSO calculation wrong.  

3. Absent Special Tax/Accounting Rules, Firms Could Achieve NQSO/ISO Taxation on Instruments Resembling Restricted Stock

The heavy lifting in constructing the tax policy argument justifying rules discriminating against discounted options is complete. It remains to be shown only that, absent § 409A and the ISO rules, firms could easily achieve NQSO or ISO tax treatment on instruments resembling restricted stock by issuing deeply discounted stock options instead.

Suppose a firm planned to make an outright grant to an employee of 1000 shares of restricted stock at a time when the shares were trading at $100. Suppose the grant was to vest in full in three years. Absent a § 83(b) election, the shares would be taxed at vesting based on the fair market value at that point. Absent § 409A and the ISO rules, the firm apparently could substitute a deeply discounted option and defer taxation until exercise or sale of the underlying shares. For example, an option on 1333 shares with a strike price of $25/share would have the same grant date aggregate intrinsic value as the restricted stock. To be sure, the fair value of the option would be slightly greater than that of the stock, reflecting the fact that even deeply discounted options are worth more than their intrinsic value. The incremental option value, which is not transparent, might drive a wedge between subjective employee valuation and employer cost. But at least some financially sophisticated employees and employers would take advantage of the opportunity to defer tax beyond vesting on deeply discounted options.

Again, this substitution offends tax policy because the pragmatic reasons for allowing deferral of tax on non-discounted options beyond vesting do not apply to stock. The restricted stock alternative in this case is easily valued at vesting.

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154 Firms that grant ISOs have a subsequent opportunity to disqualify the options and achieve NQSO taxation. Studies show that many firms that could reduce combined employer/employee taxes by disqualifying ISOs fail to do so because of complexity and/or earnings considerations. See Scholes et al., supra note 2, at 232. On the other hand, some firms apparently utilize ISOs despite a global tax disadvantage. Doing so may reduce employee-level taxes, but it is difficult to see how this choice benefits shareholders. See id. at 231 & n. 19.

155 In fact, in the case of deeply discounted options, we could apply option pricing models with much less concern about accuracy or potential manipulation, because the value of the option privilege, which is what is really being modeled, represents a relatively small portion of the total option value. In the case of a 75%
4. Expansion of NQSO/ISO Regimes to Include Stock Would Not Likely Be Catastrophic for the Public Fisc

Directionally, it seems to me that allowing the NQSO and ISO regimes to expand in the direction of restricted stock would be bad tax policy, and thus the effects of § 409A and the ISO prohibition on discounting are serendipitously positive. However, the extent to which elimination of these rules would burden the public fisc is debatable.

a. Restricted Stock Conversion into NQSOs

The incremental tax advantage of NQSOs over restricted stock that I have described holds only if recipients retain their options unexercised post-vesting and accept the risk of a stock price decline. As a practical matter, achieving additional deferral of tax through conversion of stock awards into discounted options and holding these options beyond vesting comes at a heavy cost of postponed diversification. Employees, who face a great deal of firm-specific risk, routinely sacrifice potential deferral benefits and option value by exercising options well before expiration, often only shortly after vesting.\(^{156}\) Thus, it is an empirical question, but it is not clear that the additional income deferral that would

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strike price discount, an option’s intrinsic value would likely account for more than 90% of the total option value at grant. For example, using the option pricing assumptions of note 161, infra, the BSM value of an option with a $25/share strike price on stock trading at $100/share at grant would be $79.60/option share, consisting of $75 intrinsic value and $4.60 value of option privilege.

\(^{156}\) See J. Carr Bettis et al., Exercise Behavior, Valuation, and the Incentive Effects of Employee Stock Options, 76 J. FIN. ECON. 445, 446 (2005) (finding for a sample of 140,000 option exercises by executives at almost 4000 firms between 1996 and 2002 that, on average, options were exercised a little over two years following vesting and more than four years prior to expiration); Steven Huddart & Mark Lang, Employee Stock Option Exercises: An Empirical Analysis, 21 J. ACCT. & ECON. 5 (1996) (finding that the median fraction of option life elapsed at the time of exercise ranged from 0.21 to 0.38 for options granted by seven public companies to a wide range of employees); Jennifer N. Carpenter, The Exercise and Valuation of Executive Stock Options, 48 J. FIN. ECON. 127 (1998) (finding for a sample of forty firms (mainly large manufacturers) that executive stock options granted between 1983 and 1984 were, on average, exercised after 5.8 years).

As an alternative to early exercise, some executives enter into hedging transactions that lessen the risk of continuing to hold compensatory stock options. See J. Carr Bettis et al., Managerial Ownership, Incentive Contracting, and the Use of Zero-Cost Collars and Equity Swaps by Corporate Insiders, 36 J. FIN. & QUANTITATIVE ANALYSIS 345, 352 (2001) (identifying 87 zero-cost collar and 2 equity swap transactions entered into by corporate executives between 1996 and 1998 and speculating that their sample represented only a fraction of actual hedging transactions). As David Schizer has demonstrated, a combination of tax rules penalizes executives who hedge options, see Schizer, supra note 141, thus, many of these hedging transactions are likely driven by disclosure concerns and can be analogized for our purposes to early exercise.
actually occur as a result of conversion of stock into discounted options would be terribly significant. We can be sure that the additional periods of deferral generally would be far less than the difference between the average vesting period for the typical grant of restricted stock (about three years)\(^{157}\) and the ten year contractual life of most options.\(^{158}\)

Deferral through conversion of stock awards into discounted options also carries some risk of the firm failing to perform on the option contract during the period between vesting and exercise. This risk also tends to limit deferral of option exercise and the tax advantage of options in the real world. Of course, the performance risk associated with holding employee stock options will vary firm by firm. (Not every firm is an Enron or Lehman waiting to implode.) Moreover, employees may be able to limit performance risk by exercising options and selling shares before disaster strikes.

b. Restricted Stock Conversion into ISOs

Eliminating the prohibition on ISO discounting would roughly double the maximum size of ISO grants, assuming no other change in the ISO rules. While doubling sounds significant, it is worth noting that the maximum value of grants has fallen in real terms by more than half since the regime was put in place in 1981. Given the limit on ISO grants combined with the fact that ISOs are uneconomic for many firms, expanding the regime to include deeply discounted options might have less impact on the public fisc than opening up the NQSO regime.\(^{159}\) But to explore these points, we will have to delve into the limitation on ISO grants.

Under IRC § 422(d), there is a non-inflation adjusted annual limit on ISO grants of $100,000 per recipient. The $100,000 limit applies to the aggregate fair market value of stock subject to ISOs that first becomes exercisable in a given year, and the dollar limit is based on the market

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\(^{157}\) See FREDERICK W. COOK & CO., supra note 21, at 14.

\(^{158}\) In all likelihood, employees would exercise deeply in-the-money options resembling restricted stock at least as early as traditional ATM options. The value of the option privilege relative to intrinsic value is likely to be less for an option granted deeply in the money than one granted at the money. This suggests that, on average, the holder of an ITM option would have more to gain by early exercise in terms of achieving diversification and less to lose in giving up option privilege than the holder of an ATM option. See Huddart & Lang, supra note 156, at 34 (finding that the probability of early exercise was strongly correlated with the ratio of the market price of the stock at exercise to the strike price); but see Bettis et al. (2005), supra note 156, at 457 (finding a negative, but statistically insignificant, relationship between early exercise and the ratio of market price at exercise to strike price).

\(^{159}\) Although elimination of the prohibition on discounting could have some effect on the mix, ISOs currently account for a relatively small fraction of compensatory options. See Brian J. Hall & Jeffrey B. Liebman, The Taxation of Executive Compensation, 14 NBER/TAX POL’Y & ECON. 7 (2000) (estimating that ISOs account for about 5% of options granted).
value of the stock subject to the option on the date of the grant. Purported ISO shares in excess of this amount are treated as NQSO shares.

Inflated by the CPI, a 1981 dollar is worth $2.42 today.\textsuperscript{160} Thus, in real terms, maximum ISO grants have fallen in value by more than half since the enactment of the ISO regime. Because the cap is based on the value of the shares underlying options rather than the value of the options themselves, much of this decline would be reversed by expanding the ISO regime to include deeply discounted options, if we assume that the form of the limitation was not revised.

To see this, suppose first that a firm issues ATM options as ISOs. For illustration, we will assume that the fair market value of the underlying stock on the date of the grant is $100/share, and I will adopt a set of assumptions (detailed in the margin) regarding stock price volatility, time to exercise, etc., that would be reasonable for a large manufacturing firm and that will allow us to calculate BSM values.\textsuperscript{161} Under these assumptions, the ATM options are worth about $39/share. Per § 422(d), 1000 shares can vest as ISOs in any given year, for total ISO grant value of $39,000. Now suppose that the firm issues deeply discounted options as ISOs. If the strike price is reduced to $25/share, for example, the value rises to just under $80/option share, and the firm can issue to an employee an ISO worth $80,000.\textsuperscript{162}

Since the ISO regime is elective, presumably most firms that see value in issuing ISOs would want to take full advantage of the opportunity, and issuing deeply discounted options as ISOs would be tempting. Of course, for a senior corporate executive, an increase in the value of an ISO grant from $39,000 to $80,000 would be a drop in the bucket. For a rank and file employee of a technology company, however, the difference could be significant.

However, before we conclude that expanding the ISO regime to include deeply discounted options would pose a great threat to the public fisc, two points are worth emphasizing. First, Congress could obviously change the basis of the ISO cap from the value of the underlying shares to the value of the grant. Even if BSM is not an adequate basis for ultimate taxation, it may be adequate for determining the number of

\textsuperscript{160} Inflated by the rate of growth of executive compensation, 1981 dollars would be worth far more than $2.42 today.

\textsuperscript{161} The assumptions made for illustration are as follows: $100/share grant date stock value, 35% stock price volatility, 6 years to option exercise, a risk free interest rate of 3%, and no dividends. All option values in this article were determined using the calculator found at \url{http://www.option-price.com/}.

\textsuperscript{162} The ISO opportunity could be stretched even further by pushing the strike price down near zero, but if Congress simply repealed § 422(d) without specifically embracing deeply discounted options as ISOs, a firm might choose to be conservative to minimize the possibility that a court might determine that the instrument was not an option and could not be an ISO.
option shares to be treated as an ISO or an NQSO. Second, bear in mind that ISOS are only attractive, relative to NQSOs, for firms with low effective marginal tax rates.

IV. OTHER EXPLANATIONS FOR TAX RULES DISCRIMINATING AGAINST DISCOUNTED OPTIONS

Part III documented the disparate treatment of discounted options, criticized the rationales for the disparity found in the regulatory histories, and put forward a tax policy rationale that might justify the efficiency loss associated with distorting corporate compensation arrangements. This part briefly suggests three rationales apart from tax that might explain, if not justify, the disparate treatment of discounted options. First, discounted options may appear to be a giveaway to executives. Congress may have wanted to avoid appearing to endorse or encourage the use of such options. Second, Congress may have felt that discounted options would lead to an actual giveaway – that executives would not fully pay for the moneyness of discounted options through reductions in the size of grants or other pay. Third, Congress might have been trying to protect potential recipients from irrational exuberance in favor of discounted options.

A. Symbolic Legislation

Even if compensation packages were optimally designed, it is likely that some observers would consider the issuance of discounted options to be a giveaway to recipients. These observers would view positive intrinsic value at grant as “money in the pocket” and raise the intuitively appealing argument that recipients can profit from discounted options even if share prices fail to rise.

Congress might wish to avoid the appearance of endorsing specific pay practices that would generate investor outrage. IRC § 162(m) may be viewed in this light generally. It can be seen as symbolic legislation that seeks less to solve a social problem than to demonstrate to voters that Congress shares their concerns and is taking action to deal with the problem, in the case of § 162(m) generally, excessive pay and the perception that pay was not linked to performance.164

163 The current limitation on the size of ISO grants is based on the value of the underlying shares, rather than the value of the options, and thus is quite inconsistent firm to firm. Switching to a value limit utilizing BSM would almost surely improve consistency.

164 For more on symbolic legislation, see Daniel Shaviro, Beyond Public Choice and Public Interest: A Study of the Legislative Process as Illustrated by Tax Legislation in the 1980s, 139 U. PA. L.REV. 1, 8 (1990); Mark Tushnet & Larry Yackle, Symbolic Statutes and Real Laws: The Pathologies of the Antiterrorism and
Similarly, the distinction between discounted and non-discounted options in the ISO rules, § 162(m), and § 409A might reflect, in part, congressional concern about the possibility of appearing to endorse or simply countenance explicitly discounted (read giveaway) options.

B. Avoiding an Actual Giveaway

It is possible that, prior to widespread use of the BSM option pricing model, pay packages that included discounted options could have resulted in greater overall executive pay than packages lacking discounted options, at least under a compensation setting process reflecting the managerial power view. Rules discouraging in-the-money options might have responded to this concern.

The upshot of rules discriminating against discounted options is that equity compensation is funneled into two discrete pools – stock awards and ATM options. We see this empirically, and it is not surprising given the tax and accounting rules. Channeling equity into these discrete pools may have facilitated comparison of executive pay packages, particularly prior to the widespread application of the BSM pricing model to compensatory options. Under the managerial power view, greater transparency and comparability inhibits excess compensation because deviations from the pack are easier to spot and attack.\(^{165}\) If instead of granting just ATM options or combinations of ATM options and restricted stock, firms had issued a diverse range of option instruments of varied moneyness, comparing option grants might have been more difficult and total pay somewhat higher.\(^{166}\)

Today, now that use of the BSM model is more widespread, it would be much easier to compare the value of options issued with varying degrees of grant date moneyness, and it is less likely that executives could extract greater compensation through particular option design, even if the managerial power view holds. Nonetheless, it is possible that this concern helped motivate discrimination against discounted options.

C. Protecting Employees against Irrational Exuberance

During the recent stock option backdating scandal, some observers suggested that one motivation for backdating might have been that

\(^{165}\) See Bebchuk et al., supra note 41; BEBCHUK & FRIED, supra note 41.

\(^{166}\) Even under the managerial power view, greater pay does not necessarily follow from discounting strike prices. The reverse effect is also possible. Because intrinsic value is more salient than the value of the option privilege, the ratio of executive pay to investor outrage may be maximized by granting options right at the money, despite the greater comparability of all options being granted at the money. See infra note 175 and accompanying text; see also Bebchuk et al., supra note 41; BEBCHUK & FRIED, supra note 41.
option recipients would value the discount on an option beyond the economic value (and shareholder cost) of that discount. Since the accounting rules effectively barred firms from discounting options openly, so this story runs, firms backdated in order to discount options surreptitiously and cash in on this irrational employee exuberance. Rules discouraging the grant of openly discounted options might have the effect, and possibly the intent, of protecting employees against being taken advantage of in this fashion.

There is some evidence that option recipients focus excessively on moneyness in subjectively valuing options, and this is not counterintuitive. Despite easy access to on-line BSM calculators, the intrinsic value of an option at grant is likely to be much more salient than the value of the option privilege – the opportunity to benefit from further increases in stock price without risking capital. For example, an employee comparing an ATM option on stock trading at $100/share and an ITM option, on the same stock, with a $90 strike price might think that the latter option is worth $10/option share more than the former, or something close to that, when in reality the difference in BSM value would more likely be in the $3 to $4/option share range. If so, an explicitly discounted option would be more highly valued by the recipient than a package of stock and a non-discounted option, even if that package could be designed to provide identical payoffs.

Of course, the tax rules have not discouraged firms from granting restricted stock, which is a zero strike price option, but it is unlikely that irrational exuberance in favor of discounted options would extend all the way to restricted stock. Unless an employee viewed an ATM option as being worthless, she could not conceivably view the difference in value between an ATM option and restricted stock as being equal to the difference between their strike prices, since the restricted stock is worth

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167 Option backdating refers to the practice of picking an option grant date with hindsight. For an option purportedly issued at the money, picking a grant date with a low closing stock price reduces the option’s exercise price and increases its value, although the increase in value is less than the reduction in the reduction in the strike price. See David I. Walker, *Unpacking Backdating: Economic Analysis and Observations on the Stock Option Scandal*, 87 B.U. L.REV. 561 (2007).

168 See, e.g., Holman W. Jenkins, Jr., *Apple’s Gore*, WALL ST. J., Jan. 10, 2007, at A16 (suggesting that “if employees are as prone to fallacious thinking as the media in valuing options packages, their delight in ‘in the money’ options allowed them to be taken to the cleaners....”).


171 Under the pricing assumptions used throughout this article, the ATM option would have a value of $39.31/option share; the $90 strike option would have a value of $42.96/option share.
no more than the strike price of the ATM option.\footnote{172} Presumably, at some degree of discounting, employees would reframe options as stock and the mental link back to ATM option value would be severed.

If employee preferences for option discounts are respected like any other compensation feature providing utility, harnessing this exuberance might be seen as a win-win for employees and employers. Of course, a paternalistic regulator conceivably might be concerned about firms exploiting employees by paying them with discounted options, but I am skeptical that this story explains rules discouraging discounted options for two reasons. First, it is unlikely that regulators would be aware of the potential irrational exuberance. Second, even if they were aware of the issue, regulators are unlikely to feel a strong paternalistic need to protect the well educated and highly compensated employees and executives in the U.S., who typically receive options, from making poor choices regarding the form of their compensation.

\textbf{V. THE EFFICIENCY COST OF DISTORTED COMPENSATION ARRANGEMENTS}

Rules discouraging firms from granting ITM options distort compensation design and may reduce the efficiency of corporate compensation arrangements.\footnote{173} It is difficult to quantify the efficiency loss, but this part considers the distortion issue qualitatively by considering two factors that affect the potential cost of the distortion: 1) the adequacy of combinations of ATM options and restricted stock as “second best” substitutes for ITM options and 2) the likelihood that U.S. firms would issue ITM options but for the tax and former accounting rules.

\footnote{172} Suppose, for example, that the stock’s market value at grant is $100/share. The difference in strike price between an ATM option and restricted stock would be $100/share. Assuming the employee values the ATM option positively and the stock at $100/share, her subjective difference in valuation must be less than $100/share.

\footnote{173} Distortions are not necessarily welfare reducing. A legal rule that distorts private contracts and compensates for market failure can increase social welfare. Moreover, according to the theory of second best, in the presence of a market failure, we cannot be sure that eliminating one distortion in a market, which does not totally eliminate the market failure, will enhance social welfare. See R.G. Lipsey & Kelvin Lancaster, \textit{The General Theory of Second Best}, 24 REV. ECON. STUDIES 11 (1956). Many scholars have argued that the market for \textit{executive} talent, at least, is not perfectly competitive because directors are imperfect agents of shareholders in bargaining with senior executives. See, e.g., Bebchuk et al, \textit{supra} note 41; BEBCHUK & FRIED, \textit{supra} note 41. Thus, we cannot be certain that an additional distortion related to executive compensation, even if not specifically justified as overcoming an externality or market failure, is welfare reducing. However, labor markets below the senior executive level should be competitive. To this extent, at least, distortion in compensation design is likely to be efficiency reducing.
A. The Transmutability of Synthetic and Explicitly Discounted Options

The efficiency cost of any distortion in compensation design resulting from tax or accounting rules discouraging explicitly discounted options is limited if combinations of ATM options and restricted stock, which are not discouraged, serve as a close substitute. And as a matter of pure economics, these instruments are largely transmutable. A firm can roughly approximate the incentive effects of an explicitly discounted option with a combination of conventional time-vested restricted stock and a non-discounted option. The first part of this section explores how these replications may be accomplished and discusses the limitations on replication. Afterwards, I consider details of stock and option design that tend to limit transmutability as well as the possibility, noted above, that explicitly discounted options might be more attractive to recipients than their economics would suggest. This irrational exuberance probably could not be replicated through combinations of stock and non-discounted options.

1. The Economics of Synthetic and Explicitly Discounted Options

One cannot perfectly replicate the economics of an ITM option with a combination of an ATM option and conventional restricted stock, but there are innumerable ways of approximating replication.\(^{174}\) I will focus here on a method that equalizes the grant date value of the compensation packages as well as the sensitivity of pay to stock price movement at grant as measured by option “delta”.

When economists analyze the incentive effects of options, they use the concept of option delta. Delta refers to the rate of change in an option’s value, and its price if the option is traded, relative to a small change in value of the underlying shares.\(^{175}\) Put another way, the delta of an option indicates the number of shares that one must hold to duplicate or offset the price risk exposure of the option at any given

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\(^{174}\) To see the difficulty with perfect replication, note that the payoff of an option is zero unless the market price of the underlying shares exceeds the strike price at exercise. The payoff on restricted stock, however, is always positive as long as the underlying shares have some value. Thus, any combination of stock and an ATM option will have value as long as the underlying stock has value, whereas an ITM option will be worthless as long as the share price is below the strike price. Near perfect replication could be accomplished utilizing performance-vested restricted stock that vests all or in part depending solely on the future stock price. However, this type of vesting condition is never observed, and thus I will limit my analysis to the more realistic case of conventional time-vested restricted stock.

\(^{175}\) See John C. Hull, Options, Futures, and Other Derivatives 344 (6th ed. 2006).
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time. Although delta is most commonly used in hedging traded options, it provides a useful tool for evaluating employee options as well.\footnote{See, e.g., John E. Core & Wayne R. Guay, Stock Option Plans for Non-Executive Employees, 61 J. FIN. ECON. 268-270 (2001) (using option delta as the measure of employee option incentives).}

Two other introductory comments about option delta will be helpful. First, option delta is dynamic.\footnote{See HULL, supra note 175, at 345.} As the underlying share price changes, as the option moves in or out of the money, the delta moves as well. Traders who seek to hedge option positions must regularly buy or sell shares to manage their exposure.\footnote{See id.} Second, the delta of restricted stock – the zero strike price option – is 1.0.\footnote{See id.} This makes sense. If one wished to hedge a short position in one share of stock, one would purchase a single share of stock.

Ideally, then, in order to replicate an explicit ITM option with a combination of restricted stock and an ATM option, one would select the combination that had the same BSM value and the same delta as the explicitly discounted option. However, there is no combination of stock and non-discounted option that provides the same delta as an explicitly discounted option over all potential stock prices. The dynamic nature of delta dooms the attempt. Nonetheless, there is a unique combination of stock and an ATM option that has the same BSM value and delta at grant as any ITM option, and this combination provides a fairly close approximation of the economics of the discounted option.

Let us assume, for example, that we wish to replicate a 25\% discounted option on stock with grant date value of $100/share using a combination of an ATM option and restricted stock.\footnote{The explicit ITM option would have an exercise price of $75/share.} Under the same assumptions I used in Part III in valuing options, the BSM value of this discounted option is $49.30/option share.\footnote{Those assumptions are: $100/share grant date stock value, 35\% stock price volatility, 6 years to option exercise, a risk free interest rate of 3\%, and no dividends.} Its delta at grant is 0.835.\footnote{Option deltas were determined using the calculator found at http://www.option-price.com/.} In other words, at the moment of grant, holding 0.835 shares of stock would create the same exposure as holding one 25\% discounted option share. Under the same assumptions, the BSM value of an ATM option is $39.30/option share and its delta at grant is 0.738. A share of restricted stock at the same point would be valued at $100/share and would have a delta of 1.0. Because the deltas of the instruments in a portfolio are additive,\footnote{See HULL, supra note 175, at 345.} we can determine the replicating package of stock and ATM option with a little algebra. In this case, a combination of 0.99 ATM option shares and 0.10 shares of restricted stock have the
same BSM value and delta at grant as a 25% discounted option on a single share.  

The following figure presents the payoff profiles of four equal value compensation instruments – the explicitly discounted option, the combination of ATM option and stock that provides the same delta at grant, and, for comparison, an ATM option and deferred stock alone.  

![Figure 3: 25% ITM Option Replication - Equal Value Instruments](image)

The slopes of the various lines in this figure represent the sensitivity of pay to stock price performance. As the figure illustrates, per dollar of compensation cost, ATM options provide the highest powered incentives of this group – the sharpest increase in pay for a given increase in share price – at least over the range of stock prices equal to the grant date price and above. Deferred stock provides the least pay-for-performance sensitivity. The synthetic and explicitly discounted options provide similar pay-for-performance sensitivity that is intermediate to that of deferred stock or ATM options alone.

And this is the primary point to this analysis: not that firms can perfectly replicate ITM options through combinations of deferred stock and ATM options, but that the two approaches can be used to provide similar incentives, which suggests that synthetic ITM options may provide a reasonably close substitute for explicit ITM options, from an

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184 See Appendix.

185 Because the “premiums” paid for compensatory stock or options take the form of reductions in other compensation, which are unobservable, these payoff diagrams focus solely on the value received by the participant at settlement.
optimal contracting standpoint. However, this rather abstract view of the transmutability of explicit and synthetic ITM options is to some extent tempered by differences in details of stock and option design discussed in the next subsection and by differences in employee perceptions discussed in the following subsection.

2. Differences in Stock and Option Design that Affect Transmutability

The devil, of course, is always in the details, and several details regarding the design of conventional stock and option compensation undermines transmutability. These design features are not cast in stone, but there is undoubtedly inertia behind these conventional features.

a. The Timing of Stock Vesting and Option Exercise

The analysis in this part has been based on a simplifying assumption of European options (options that may be exercised only on a single, pre-specified date) which are exercisable, if at all, on the same date that the restricted stock vests. In reality, U.S. compensatory stock options are Bermudan. They cannot be exercised prior to vesting, and, in some cases, exercise may be proscribed during certain black-out periods, but otherwise they may be exercised at any point between vesting and expiration at the holder’s discretion. Expiration, typically, is on the tenth anniversary of the date of grant. Clearly, the ability to time the exercise of an option provides value to the holder that cannot be replicated through deferred stock.

However, the difference is not as important as one might think. Vesting patterns for stock and option grants tend to be similar, and the

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186 As I have noted, the deltas of the synthetic and explicit ITM options will not track over time. If, for example, the share price doubles to $200, the delta of the explicit ITM option would be 0.963, while the delta of the combination grant would be 1.017. If the stock fell to $50/share, the delta of the explicit ITM option would be 0.566, while the combination grant’s delta would be 0.529.

187 U.S. employee stock options are often referred to as American options, but technically an American option may be exercised at any point between the grant of the option and expiration. U.S. employee stock options are a hybrid of European and American options, hence Bermudan.

188 Stock can obviously be held past vesting as well, but holding stock entails greater downside risk than holding an option. Thus, all else being equal, one would expect options to be held longer than stock.

189 A recent study of executive compensation practices at the 250 largest companies in the Standard & Poor’s 500 Index found that 96% of stock options and 95% of restricted stock grants vested in three to five years. Although options were more likely than stock grants to vest in installments, the distribution of vesting periods was quite similar. See Frederick W. Cook & Co., supra note 21, at 14.
evidence indicates that optionees routinely sacrifice option value by exercising the instruments well before expiration.\footnote{See supra note 156 and accompanying text.}

b. IRC § 83(b) Elections

I have assumed throughout that recipients of restricted stock do not make § 83(b) elections. If this election is made, stock compensation is taxed at grant, based on its grant date fair market value, ignoring the restriction on transferability prior to vesting. Gains or losses going forward are capital gains or losses. At first blush, the election might seem advisable for a bullish employee in receipt of restricted stock. Recognizing a small amount of ordinary income at grant and establishing a low basis would convert ordinary income into capital gain. But for two reasons public company employees rarely make § 83(b) elections. First, if they do, and if they forfeit the stock prior to vesting, the tax paid is not recoverable.\footnote{See IRC § 83(b) (clarifying that an individual making a § 83(b) election cannot subsequently claim a deduction if the property is forfeited).} Second, public company employees can generally purchase shares outside of compensation plans. If their bullish prediction is correct and the stock appreciates, they will be better off deferring the tax on the restricted stock grant by forgoing the § 83(b) election and investing the deferred tax in more shares.\footnote{See David I. Walker, Market Symmetry and the Tax Efficiency of Equity Compensation (Working Paper).}

On the other hand, bullish employees of private companies, who often cannot purchase shares outside of compensation plans, might reasonably choose to make the election, particularly if they are relatively confident that they will remain with the company through vesting.\footnote{See Ronald J. Gilson & David M. Schizer, Understanding Venture Capital Structure: A Tax Explanation for Convertible Preferred Stock, 116 Harv. L. Rev. 874 (2003).} In these situations, the possibility of a § 83(b) election with respect to stock, but not options, reduces the similarity between explicit ITM options and packages of stock and non-discounted options.

c. Other Differences

There are other important differences between stock and option grants that affect the transmutability of explicit and synthetic discounted options. As Dean Schizer has shown, executives can readily hedge restricted stock grants in the period between grant and vesting, whereas tax and securities laws make it much more difficult and costly for executives to hedge their exposure to options.\footnote{See Schizer, supra note 141.} Holders of restricted stock receive dividends; option holders are not generally entitled to dividends, although executive stock option plans sometimes include
“dividend protection,” which economically approximates dividend rights.\textsuperscript{195} Restricted shares may be voted in shareholder elections; options provide no voting rights.\textsuperscript{196}

3. Employee Attitudes towards Explicit and Synthetic Discounted Options

As discussed in Part IV.C, as a result of a salience bias, employees may perceive explicitly discounted options to be more valuable than economically equivalent packages of non-discounted options and restricted stock. Differences in perceived value would make it costlier for firms to substitute packages of non-discounted options and stock for explicitly discounted options. Of course, this difference has independent normative implications. We may legitimately disregard a “cost” associated with reduced exploitation of employees.

B. Would U.S. Firms Issue ITM Options but for the Tax and Accounting Rules Discouraging Them?

It is clear from the data reviewed in Part II.B that there is significant demand for ITM pay packages at U.S. public companies. This does not mean, however, that in the absence of regulatory barriers, firms would simplify compensation plans and reduce administrative costs by replacing combinations of stock and non-discounted options with explicitly discounted options. Why not? One reason would be that the irrational exuberance of employees in favor of discounted options might well be matched by irrational outrage on the part of investors and the financial press. We are all susceptible to the salience bias, and it might be difficult for firms to convince investors that discounted options represented optimal compensation, rather than a giveaway to employees. Given that risk, firms might logically decide to continue granting relatively low-outrage packages of non-discounted options and stock, at least to senior executives whose pay is most visible and outrage-inducing, even if there was some loss of efficiency.\textsuperscript{197}

\textsuperscript{195} See Murphy, supra note 15, at 2510 (noting that the most common form of dividend protection is the payment of accumulated dividends plus interest on option exercise).
\textsuperscript{196} Of course, performance shares, which are equivalent economically to restricted stock, are non-voting prior to settlement, just like options.
\textsuperscript{197} Consider out-of-the-money options. There are no tax or other regulatory barriers to issuing these options, but they are observed almost as rarely as ITM options. Why? Perhaps they are rarely optimal. Perhaps just as employees would tend to overvalue a strike price discount, they might overestimate the cost to them of a strike price premium. But another possibility, put forward by Lucian Bebchuk, Jesse Fried, and myself, is that the ATM line might represent an investor outrage sweet spot for executive stock options. If discounted options draw fire, while firms receive little credit from investors for issuing premium options, the ratio of option value to investor
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It is a difficult proposition to assess. One might look elsewhere in the world to see whether discounted options are prevalent, but relationships between directors and shareholders of U.S. firms are somewhat unique, and, moreover, one would find that the U.S. is not alone in discouraging explicitly discounted options. Thus, this international inquiry might not be as fruitful as it might appear at first blush.198

VI. ALTERNATIVE POLICY RESPONSES

Current U.S. tax rules all but preclude explicitly discounted employee stock options. These rules limit preferential option tax treatment to the class of instruments for which that treatment is most justified – non-discounted options – but the rules potentially distort compensation design and may result in less efficient compensation arrangements. This part briefly explores two alternative tax regimes that could reduce the distortion – 1) modification of § 409A, § 162(m), and the ISO rules to eliminate the ITM/ATM option distinction, combined with bifurcation of explicitly discounted options for tax purposes, and 2)

outrage may be maximized by issuing ATM options. See Bebchuk et al, supra note 41; BEBCHUK & FRIED, supra note 41.

198 Discounted options are observed in the U.K., but following the 1995 Greenbury Report on best practices for corporate governance, they appear to have been limited to non-executive employees. See DIRECTORS’ REMUNERATION: REPORT OF A STUDY GROUP CHAIRED BY SIR RICHARD GREENBURY, 17 (1995) (noting that executive share options should never be issued at a discount); MARTIN J. CONYON & CHRIS MALLIN, DIRECTOR’S SHARE OPTIONS, PERFORMANCE CRITERIA AND DISCLOSURE: COMPLIANCE WITH THE GREENBURY REPORT 47 (1997) (providing data indicating that non-executive options issued by FTSE 100 and Mid 250 firms in the mid-1990s were granted with mean discounts of about 19%, while executive options were issued with no discounts, but noting that prior to the Greenbury report many executive options were issued at the money); Konstantinos Stathopoulos et al., U.K. Executive Compensation Practices: New Economy versus Old Economy, 16 J. MGMT. ACCT. RES. 57, 77 (2004) (finding that a “substantial portion” of options issued to U.K. retailing employees were issued at a considerable discount).

In Germany, the stock corporation act restricts stock option discounting. See PRICEWATERHOUSECOOPERS, EMPLOYEE STOCK OPTIONS IN THE EU AND THE USA: GERMANY ¶ 2.9 (2002). Moreover, tax rules in Belgium, France, Ireland, and Italy (formerly) discourage ITMOs. See Francesco Cohen et al., Employee Stock Options: Italy and the World, 44 TAX NOTES INT’L 928, 965, 969-70 (Dec. 18, 2006) (describing former and current Italian tax rules and briefly outlining rules applicable in France and Ireland); PRICEWATERHOUSECOOPERS, EMPLOYEE STOCK OPTIONS IN THE EU AND THE USA: OVERVIEW (2002) (noting that discounted options in Belgium are subject to social security tax). Canadian income tax rules strongly discourage discounted options. Employees receiving non-discounted options effectively pay tax on gains at exercise at capital gains rates as the result of a special tax deduction. That deduction is not available with respect to discounted options, the gains on which would be taxed as ordinary income. See Income Tax Act, R.S.C. 1985, c.1 (5th supp.) § 110(1)(d) (Can.).
maintaining a bright line rule, but shifting the break point between permissible and impermissible options.

A. Bifurcating Discounted Options for Tax Purposes

Of course, one could eliminate the distortion in option design created by § 409A, § 162(m), and the ISO rules by modifying these rules to treat discounted options on a par with non-discounted options. However, as we have seen, making this change in isolation would permit firms to issue deeply discounted options that resemble restricted stock economically, but that would be taxed at exercise rather than at vesting. In my view, much more evidence of costly distortion would be needed to justify such a change.

Suppose, however, that the tax rules were modified as suggested but that options granted in the money were bifurcated for tax purposes into a simple combination of restricted stock and an ATM option. This approach would eliminate the current discontinuous tax treatment and put explicitly discounted options back on the table. However, to be at all manageable, the bifurcation would have to be much simpler than the replication discussed in Part V. Let’s suppose the new rule bifurcated ITM option shares into restricted stock and ATM option shares based simply on the percentage by which the actual option was in the money at grant. For example, an option granted with a $75 strike price on shares worth $100 at grant would be treated for tax purposes as 0.25 shares of restricted stock and 0.75 shares of an ATM option. Going forward, the employee would recognize income on the deemed restricted stock portion at vesting regardless of whether the option was actually in, at, or out of the money at that time. At option exercise, if that were to occur, the employee would recognize income based on the deemed exercise price of the ATM option. If the option expired unexercised, the employee would be entitled to reverse the ordinary income recognized when the deemed restricted stock vested.

Although such an approach would be complex, it would eliminate the current discontinuity in tax treatment of options and allow firms wishing to grant ITM pay packages to choose between explicitly discounted options bifurcated for tax purposes and pay packages actually bifurcated into ATM options and restricted stock. Given the complexity of this approach, however, as well as the possibility of taxable income arising from the deemed restricted stock in cases in which options are underwater at vesting, I would suspect that most

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199 Presumably, the employee would also be entitled to make a § 83(b) election with respect to the deemed stock portion at grant.

200 Suppose, for example, that the firm’s stock was trading at $50/share when the hypothesized option vested. The $75 strike option would be unexercisable, but the employee would be forced to recognize income of $12.50 per option share ($50/share x .25 shares) on the deemed restricted stock.
firms would continue granting both stock and non-discounted options rather than granting explicitly discounted options under this tax regime.

B. A More Lenient Bright Line Rule

If one believed that the efficiency cost of the distortions created by the current tax distinctions between discounted and non-discounted options was serious, but perhaps only slightly greater than the benefits resulting from preventing the preferential option tax regime from extending to instruments resembling restricted stock, one might favor maintaining the current approach of using the tax rules to take certain options off the table, but shifting the line between permitted and prohibited discounts from zero to something greater than zero, call it X%. This modification would be simple to draft and simple to understand. NQSOs discounted up to X% would be taxed consistently with non-discounted NQSOs and would satisfy the § 162(m) safe harbor. ISOs could be discounted up to X%, as well, or one could maintain the current break point for ISOs or NQSOs and shift the break point for the other tax regime. Options discounted further than X% would be taxed at vesting and subject to the 20% penalty tax of § 409A, would not satisfy the § 162(m) safe harbor, and/or would not qualify as ISOs.

If the existing tax rules produce efficiency costs, a move in this direction would reduce them, but, of course, it would also expand the reach of one or both of the preferential option tax regimes. Although it seems unlikely that the current at-the-money break point is optimal, it is not obvious that any other arbitrary break point – 25% discount, 50% discount, or even 25% premium – would be superior. Nothing we have seen suggests anything other than continuous, monotonic relationships.

VII. CONCLUSION

In my assessment, curtailing the ability of firms and employees to achieve the tax deferral and timing control associated with NQSOs and ISOs for deeply discounted options that resemble stock awards is the most compelling argument for rules discouraging grants of explicitly discounted options. I am not convinced that the incremental threat to the public fisc of expanding NQSO & ISO taxation to stock grants is terribly serious, although I would view such expansion as a move in the wrong direction.

Moreover, while one could certainly criticize § 409A’s 20% penalty tax on discounted options as being an excessive and uncalibrated response – taking discounted options off the table entirely rather than treating and taxing them as part of a continuum – at this stage of the
analysis it is not clear that the efficiency cost of forcing firms to bifurcate in-the-money pay packages into combinations of non-discounted options and stock is all that great. Given the additional wildcard of unpredictable subjective valuation of explicitly discounted options, which is unlikely to add to social welfare, it is not obvious that relaxing the current bright line rules or replacing them with more nuanced regulation is desirable.
1. **Overview of Current Tax Treatment of Equity Compensation**

<table>
<thead>
<tr>
<th>Type of Instrument</th>
<th>Time of Employee Inclusion</th>
<th>Character of Employee Tax</th>
<th>Employer Deduction?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted stock</td>
<td>Vesting is default, but employee can elect taxation on grant date. IRC § 83.</td>
<td>Ordinary income.</td>
<td>Yes, when employee includes in income. IRC § 83.*</td>
</tr>
<tr>
<td>Non-qualified stock options and stock appreciation rights (non-discounted)</td>
<td>Option exercise. IRC § 83.</td>
<td>Ordinary income.</td>
<td>Yes, when employee includes in income. IRC § 83.</td>
</tr>
<tr>
<td>Non-qualified stock options and stock appreciation rights (discounted)</td>
<td>Vesting. IRC § 409A.</td>
<td>Ordinary income + 20% penalty tax.</td>
<td>Yes, when employee includes in income. IRC § 83.*</td>
</tr>
</tbody>
</table>

* Subject to limitations of IRC § 162(m).
** Discounted options do not qualify as ISOs. IRC § 422(b).

201 I thank Leandra Lederman for suggesting the inclusion of this table in the appendix.
2. BSM AND INITIAL DELTA EQUIVALENT ITM OPTION REPLICATION

Under the pricing assumptions listed in note x, supra, the BSM values and grant date deltas of the instruments considered in Part V.A.1 are as follows:

<table>
<thead>
<tr>
<th></th>
<th>ATM Option</th>
<th>25% ITM Option</th>
<th>Rest. Stock</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSM Value</td>
<td>$39.3</td>
<td>$49.3</td>
<td>$100</td>
</tr>
<tr>
<td>Initial Delta</td>
<td>.738</td>
<td>.835</td>
<td>1.0</td>
</tr>
</tbody>
</table>

The combination of shares of restricted stock (x) and ATM options shares (y) that has the same BSM value and initial delta as the 25% ITM option is determined as follows:

\[100x + 39.3y = 49.3.\]
\[1x + .738y = .835.\]

Solving the equations yields \(x = .103, y = .991.\)