Executives and Hedging: The Fragile Legal Foundation of Incentive Compatibility

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Executive Stock Options and Derivatives: Tax as Corporate Governance Ally

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Tax as Corporate Governance Ally

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In the capital markets, the 1990s have been the decade of executive stock options and the derivatives market. Legal scholars and economists have begun to realize that, in combination, these two trends raise a serious concern. Options are supposed to inspire better performance by tying pay to the stock price. Yet, what if an executive could use the derivatives market to simulate a sale of her option – a practice known as “hedging” – without violating her contract with the firm? The incentive justification for option grants would no longer hold.

This Article demonstrates that the tax law helps avert this consequence in the United States; this phenomenon, in turn, shows that the U.S. tax law performs an important corporate governance function, not previously recognized in the academic literature. The tax law discourages executives from hedging options (but not necessarily from hedging stock holdings, although such hedging raises somewhat different concerns). Whereas shareholders and executives should contract to ban options hedging, the existing tax barrier is a plausible substitute. Indeed, since the tax law already has reason to monitor and penalize hedging, it can perform this corporate governance function without significant new administrative costs. Yet the tax barrier is overbroad and potentially unstable. Indeed, it could unravel due to relatively minor changes in the tax law that seem far removed from corporate governance. Moreover, the tax barrier does not govern foreign executives who are not subject to U.S. tax. Accordingly, this Article recommends strengthening contractual and securities law constraints on hedging. It concludes with reflections about the capacity of tax to influence corporate governance, not only for the worse, as has widely been observed, but also sometimes for the better.

1 Associate Professor, Columbia Law School. I appreciate the helpful comments of Joseph Bankman, David Bradford, Daniel Budofsky, Marvin Chirelstein, Sender Cohen, Samuel Dimon, Aaron Edlin, Melvin Eisenberg, Michael Farber, William Gentry, Victor Goldberg, Jane Ginsburg, Martin Ginsburg, Jeffrey Gordon, John Manning, Curtis Milhaupt, David Miller, Henry Monaghan, Barbara Nims, James Peaslee, Robert Scarborough, Michael Schler, Daniel Shaviro, Po Sit, George Spera, Lewis Steinberg, Andrew Steinerman, Peter Strauss, and Lawrence Zelenak, as well as the research assistance of Ara Gershengorn. I thank the participants at the Columbia Law School faculty lunch and the NYU Tax Colloquium for their thoughts when this paper was presented. Finally, I appreciate the support of the Milton Handler Research Fund.
In the capital markets, the 1990s have been the decade of executive stock options and the derivatives market. Enormous option grants have raised executive pay to staggering new heights, while intensifying its sensitivity to firm stock prices. Growth of the derivatives market has been comparably dramatic. Simply put, derivatives are financial bets, which might be about interest rates, a particular stock price, etc. Some derivatives, such as options, have been around for many years; indeed, executive stock options are derivatives. In contrast, “equity swaps” are relatively new. In recent years, moreover, finding a counterparty has become much easier. Trillions of dollars of derivatives transactions are now outstanding and the volume is constantly growing.

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2See, e.g., John Helyar & Joann S. Lublin, Corporate Coffers Gush With Currency of an Opulent Age, Wall St. J., Aug. 10, 1998, at B1, B4 (calling stock options “the ultimate 90’s status symbol” and noting that “the U.S. Treasury might consider a new motto for the old-fashioned money it mints: In Options We Trust”). In 1998, the five best compensated CEOs split $1.2 billion. Jennifer Reingold & Ronald Grover, Executive Pay: Special Report, Bus. Wk., April 19, 1999, at 73; see also id. at 74 (noting that exercised options made up 80% of the average CEOs pay package, up from 72% in 1997). The trend also extends to executives below the CEO rank. Tom Leander, Raking in the Cash, Global Fin., Aug. 1998, at 16 (noting 83.81% increase in compensation of 76 surveyed CFOs from 1996 to 1997, with the increase largely attributable to options).


4See Group of Thirty, Global Derivatives Study 28 (1993) [hereinafter, G-30 Study] (“In the most general terms, a derivatives transaction is a bilateral contract or payments exchange agreement whose value derives, as its name implies, from the value of an underlying asset or underlying reference rate or index.”).

5See Richard Reinhold, Tax Issues in Equity Swap Transactions, 57 Tax Notes 1185 (Nov. 23, 1992); Keyes, supra note 3, at 14-3 (swaps “have, to put it simply, revolutionized the financial markets”).

6See Paula Froelich, OTC Derivatives Are Popular With Investors, Profitable For Brokers, Wall St. J., July 26, 1999, at B8H (“There is one hot product area that seems to be thriving regardless of the market’s fate: over-the-counter equity derivatives.”); Stephen Labaton & Timothy L. O’Brien, Financiers Plan to Put Controls on Derivatives, New York Times, Jan. 7, 1999, at C1, C3 (noting that $37 trillion worth of privately traded derivatives contracts are (continued...)
Legal scholars and economists have begun to realize that, in combination, these two trends raise a serious concern. Outlining, compared to only $865 billion in 1987).

7See Frank H. Easterbrook, Derivative Securities and Corporate Governance, 2 Alternative Forms of Organization 99, 100-01(draft of June 3, 1999) (unpublished manuscript on file with author) (cautioning that managers could use derivatives to “liberate their compensation from the firm’s performance,” so that “both financial and governance devices can be defeated by this maneuver”). But cf. id. (noting that the derivatives market can have favorable corporate governance implications as well, such as in allowing market pricing of governance terms to work more efficiently). See also Eli Ofek & David Yermack, Taking Stock: Does Equity-Based Compensation Increase Managers’ Ownership? N.Y.U. Working Paper (November 1997) (noting that estimate of selling by executives “is likely to be underinclusive . . . [because] [i]n recent years derivative securities dealers have developed many ways for managers to realize value from their equity holdings without having to “sell” their shares in a legal sense . . .”). Robert Dean Ellis, Equity Derivatives, Executive Compensation, and Agency Costs, 35 Hous. L. Rev. 399, 402-3 (1998) (warning that executives can “defease” incentive compensation with derivatives); Steven Bank, Devaluing Reform: The Derivatives Market and Executive Compensation, 7 DePaul Bus. L.J. 301 (1995) (“The real problem with the trend toward stock-based compensation and the assumption that it will properly reward and motivate executives lies in the rapid development of new financial products in the booming derivatives market.”). See also Share Options, Economist, Aug. 7th, 1999, at 18, 20 (describing derivatives as a route to “escal[ing] restrictions on exercising or selling their share options”); Paul Bolster et al., Executive Equity Swaps and Corporate Insider Holdings, 25 Fin. Man. 14 (1996) (describing insider’s use of equity swap to hedge Autotote stock); J. Carr Bettis et al., Insider Trading in Derivative Securities: An Empirical Examination of the Use of Zero-Cost Collars and Equity Swaps by Corporate Insiders, Arizona State University Working Paper (testing frequency of stock hedging by insiders and discussing its corporate governance implications); Rick Antle & Abbie Smith, An Empirical Investigation of the Relative Performance Evaluation of Corporate Executives 24 J. Accounting Rsch 1, 6 (1986) (cautioning that conventional economic analysis of optimal incentive contracts is potentially flawed because the models do not account for “the effects of an executive’s ability to hedge the risk of ownership of shares in his firm’s employment”). Cf. Chip Heath et al., Psychological Factors and Stock Option by derivatives for insider trading and evasion of section 16(b)); Karl Shumpei Okamato, Oversimplification and the SEC’s Treatment of Derivative Securities by Corporate Insiders, 1993 Wis. L. Rev. 1287 (1993).
performance by tying pay to the stock price. Because the underlying theory no longer holds if the executive sells the option, firms ban sales by contract. Once a specified “vesting” period has elapsed, firms allow executives to exercise the option and sell the stock; by this time, though, new unvested grants are supposed to preserve the desired incentive. Yet what if an executive could use the derivatives market to simulate a sale of her options (included unvested ones) – a practice I call “hedging” – without violating her contract? The incentive justification for option grants would no longer hold. Nor could the market (or academic commentators) ascertain an executive’s true level of ownership if she did not disclose the hedge. In addition, debates about refining incentives would lose their urgency. For example, even if executives should be rewarded for outperforming competitors or the market as a whole, rather than for absolute increases in stock price, an option’s structure would not matter if executives could simply undo it with derivatives.

This Article demonstrates that the tax law helps avert these consequences in the United States; this phenomenon, in turn, shows that the U.S. tax law

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8 See Part I.C.1, infra.

9 See Part II.A, infra.

10 New unvested options could also increase an executive’s exposure, instead of merely preserving it. Yet executives can avoid an increase by exercising vested options and then selling the stock received. See Ofek & Yermack, supra note 7. Although Professors Ofek and Yermack describe such behavior as “hedging,” see id., this Article refers to such behavior as “exercise.” As used here, “hedging” refers instead to a separate derivatives transaction whose return cancels out the return from option holdings. For example, an executive would sell to a derivatives dealer an option like the one received as salary. She would keep the sales proceeds. Thereafter, any pre-tax gain (or loss) on the hedge would offset any pre-tax loss (or gain) on the salary option. See Part I.B (explaining how options hedging would work, if not for tax and other constraints).


12 In contrast, some of the articles cited in note 7, supra, have erroneously suggested that options hedging is feasible. See, e.g., Easterbrook, supra note 7, at 100-01; Ellis, supra note 7, at 402-3 (1998); Bank, supra note 7, 12, at 301; (continued...
performs an important corporate governance function, not previously recognized in the academic literature. Quite to the contrary; conventional wisdom has it that U.S. tax law impedes corporate governance, or at least pursues governance objectives ineffectively. This Article offers a significant counterexample (albeit an ironic one, since Congress did not intend the relevant tax rules to address corporate governance). First, the tax law discourages (but does not necessarily prevent) executives from exercising vested options and selling the stock. Second, and more importantly, the tax law generally prevents executives from hedging options. The reason is that hedging could trigger a sizeable tax even when the executive has no pretax profit, because deductions for hedging losses are of limited value, if available at all. As a result, firms and shareholders can be confident that,

\[\text{12}(\text{continued})\]

Antle & Smith, supra note 7, at 6.


\[\text{14}\] As discussed in Part IV.B., deductions for hedging losses may be deferred indefinitely for two reasons: first, hedging losses usually are capital, and thus (continued...)
as long as an option has not been exercised, it offers the executive unhedged exposure.

However, the same cannot be said of an executive’s stock holdings (whether acquired through a market purchase or through exercise of an option). The same tax penalties do not operate, and so stock hedging does occur.\textsuperscript{15} To an extent, though, stock hedging does not raise the same concerns; executive stock ownership does not breed unambiguously good incentives and is less likely to be the subject of a bargain with shareholders.\textsuperscript{16}

As for options hedging, the tax law is not the only constraint. A subset of firms do limit hedging by contract. More commonly, contractual bans on pledging options increase the transaction costs of hedging. In addition, Section 16 of the Securities Exchange Act requires the most senior executives, so-called “insiders,” to disclose certain hedges and, in some cases, makes hedging illegal. Yet less senior executives, who still may have sizeable option grants, are not affected by these constraints, and even insiders may be able to sidestep them with subtler hedging strategies (such as derivatives based on a “basket” of stocks whose value tracks the employer’s stock price).\textsuperscript{17} The tax law fills these gaps.

Although it is preferable to refine these contractual and securities law limits, the tax barrier is a plausible substitute. Because the U.S. tax law already has reason to monitor and penalize hedging, it can perform this corporate governance function without significant new administrative costs. Yet the tax

\textsuperscript{14}(...continued)
cannot offset ordinary income from the option; second, the hedge and option would be a “straddle” under section 1092, and straddle losses are potentially subject to deferral. Even when available, the deduction is insufficiently generous, as discussed in Part IV.C. An extra dollar of hedging loss reduces tax by less than an extra dollar of hedging gains increases it. The gain generates 39.6 cents in tax (since this capital gain is short-term under the straddle rules), whereas the loss reduces tax by only 20 cents (since it typically reduces long-term capital gains). As a result, the hedge cannot leave the executive indifferent, after taxes, to changes in the stock price; she will have losses either as the stock price rises or as it falls.

\textsuperscript{15}For a case study, see Bolster et al., supra note 7, at 20 (describing Autotote swap). Indeed, the hedging identified in the Bettis study, supra note 7, are also stock hedges. See Letter from Bettis to Schizer (noting that hedges identified in study are of stock, rather than options) (on file with Columbia Law Review).

\textsuperscript{16}See infra Part I.C.5.

\textsuperscript{17}For a discussion, see infra Part I.B. & Part II.B.
As discussed in Part I.C.1, executive hedging that screens out risk of broad market movements, while leaving the executive with firm-specific risk, may be favored by shareholders. Executives would in effect synthesize the market adjusted options discussed in supra note 11. Put another way, the tax law “overfills” a gap in the securities laws – its neglect of basket hedges – by blocking “good” basket hedges, along with “bad” ones.

Chairman Archer has proposed to repeal the alternative minimum tax beginning in 2008, a step that would significantly reduce the tax burden on hedging with swaps. For a discussion, see infra Part IV.D.1.

Export of this U.S. compensation practice is inappropriate, though, unless foreign executives are constrained from hedging, a function the U.S. tax law usually will not serve.

Accordingly, this Article makes three recommendations. First, every firm should restrict options hedging by contract. Second, the U.S. securities law limits on options hedging should be clarified and expanded, and analogous regimes should be adopted in other jurisdictions. Finally, the favorable current U.S. tax and accounting treatment for options (i.e., tax deductible but not an accounting expense) should either be repealed or limited to firms with effective anti-hedging policies.

After describing stock options and the mechanics of hedging, Part I considers the social costs of options hedging and explains its attraction to

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See, e.g., David Cay Johnston, American-Style Pay Moves Abroad, N.Y. Times, Sept. 3, 1998, at C1 (noting globalization of options as compensation); Leslie Chang, Chinese Firms Find Incentive to Use Stock-Compensation Plans, Wall St. J., Nov. 1, 1999, at A42 (Chinese firms are beginning to offer option grants). Kevin J. Murphy, Executive Compensation 7-8 (April 1998) (unpublished manuscript) (noting that use of options once was uncommon outside the United States, but in recent years “interest in stock options is exploding . . . in the Pacific Rim and in Europe and Latin America”); Curtis J. Milhaupt, The Market for Innovation in the United States and Japan: Venture Capital and the Comparative Corporate Governance Debate, 91 N.W. U. L. Rev. 865, 890 (1997) (in Japan, legal prohibitions on options were recently lifted, and firms are beginning to offer options).
executives. Part II describes existing contractual and securities-law constraints on hedging. Parts III and IV show the way tax law fills in gaps in these constraints. In particular, Part III describes the way the tax law discourages (but does not prevent) executives from exercising options, and Part IV shows the tax law’s more punitive treatment of options hedging. Part V considers advantages and disadvantages of relying on the tax law for such functions. Part VI offers some recommendations. Finally, after considering the Article’s implications for the literature on stock options, derivatives and comparative corporate governance, Part VII concludes with reflections about the capacity of tax to influence corporate governance, not only for the worse, as has widely been observed, but also sometimes for the better.

I. HEDGING AND THE AGENCY PROBLEM

This Part describes executive stock options and how, if not for tax and other barriers, executives could hedge them with derivatives. This Part then explains why shareholders will not want an executive to hedge and why she may be tempted to do so anyway.

A. Executive Stock Options and the Traditional Exit Strategy: Exercising the Option and Selling the Stock

An executive stock option entitles the executive to buy some number of shares from her employer at a specified price (the “exercise price”) on or before the “maturity” date.\(^{21}\) For example, this “call” option may permit the executive to buy 10,000 shares for $10 at any time in the next ten years.

An option is a valuable right -- indeed, it is valuable even if the stock has not risen above the exercise price. The option allows the executive to choose to buy the stock at $10 (i.e., if it is trading above $10) but does not obligate her to do so (i.e., if it is trading below $10). This choice has value in offering unlimited opportunity for gain (as the stock rises above $10) with limited risk of loss. If the stock price fall to zero, the executive loses only what she paid for the option (the so-called “premium”) which, for the executive, is the cash salary she gave up to get it. In addition, an option is valuable in sparing the holder from committing capital, since the option costs less than the underlying stock. Given these two advantages, an option has value, known as “time value,” beyond its so-called intrinsic value (i.e., the amount the holder can earn by exercising it on a given day).\(^{22}\)

\(^{21}\)For a description, see Arthur H. Kroll, Compensating Executives 41-43 (1998) (describing typical option). Such options to buy are known as “call” options. In contrast, options to sell are called “put” options.

\(^{22}\) Robert W. Kolb, Financial Derivatives 91 (2d ed. 1996) (noting that (continued...)}
Since the option will appreciate with the stock price, an executive who holds one should have an incentive to perform well, and thus to drive up the stock price. Of course, executives will not want to hold an option indefinitely; eventually, they will want to spend their gains or, perhaps, to diversify by investing in something else. Recognizing this reality, firms allow executives to “cash out” by exercising the option (that is, tendering the exercise price in return for stock) and then selling the stock received. Yet to preserve the executive’s incentive, firms take two steps. First, they prevent an executive from exercising the option until a specified “vesting” period has elapsed. For example, the vesting period might be four years, with one-quarter of the grant vesting each year. Second, firms can monitor the number of unexercised options and, if it falls below the desired level, they can adjust subsequent pay accordingly (e.g., by offering relatively less cash and more options and by lengthening the vesting period of new grants).

Exercise is relatively easy exit strategy for firms to police. Since the firm is the counterparty on the option, executives cannot exercise it – that is, they can’t use it to get stock at a below-market price – without the firm’s consent and knowledge. Likewise, the executive cannot sell the option without the firm’s consent; no one would buy it because the firm might refuse to honor it if tendered by someone else. In addition, exercise carries a built-in economic penalty that could deter executives from taking this step; exercising the option extinguishes its time value. Put another way, if an executive has an option to buy stock at $10 and the stock is trading at $50, the option is worth more than the $40 she could get by exercising it and selling the stock. Before it is exercised, an option also offers the time-value advantages, described above, of retaining use of the exercise price and not putting it at risk.

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22(...continued)

options have value in excess of intrinsic value).

23For example, the executive who received an option on 10,000 shares might be allowed to exercise a maximum of 2,500 in the first year, and then the same number in the second, third, and fourth years.

24Firms will not necessarily know that the executive has sold the stock, absent disclosure. Yet the disclosure obligation for sales of stock is clear. In addition, firms should probably assume that executives are selling the stock received upon exercise. As discussed below, if the executive wishes to remain exposed to the stock, there is an economic incentive to do it through the option (i.e., its time value). Empirically, it is also very common for executives to sell stock received upon exercise. Heath, supra note 7, at 606 (“[T]he great majority of option-holders immediately sell the stock acquired on exercise. . . .”).

25As discussed below, firms should also prefer exercise as an exit strategy because it triggers their tax deduction, while hedging does not. There is also a tax (continued...
B. Hedging as an Alternative Exit Strategy: Illustrative Examples

If not for the tax and other barriers discussed below, the derivatives market would offer executives a new exit strategy, hedging, that does not share these advantages to the firm. In a hedging transaction, the executive would enter into a formally separate transaction whose return would cancel out the return on the option; for example, she might sell an option with the same exercise price as the one she received from her firm. Just like exercise, then, hedging offers cash proceeds and insulation from changes in the option’s value.

However, the firm has less control over this exit strategy. Whereas exercise of the option is a transaction with the firm, hedging is a transaction with a third party such as a derivatives dealer. Thus, the firm’s participation (and consent) are no longer inherently necessary. Although the firm ought to negotiate for contractual limits on hedging, we shall see that such provisions are relatively uncommon. Indeed, absent some other constraint, executives could hedge unvested options, even though they could not exercise them. Nor will the firm know the executive is “exiting” in this way unless she discloses this information; as we shall see, disclosure obligations are somewhat porous under current law. In addition, hedging does not require the executive to forgo the option’s time value, as does exercise. Just as selling the option would not extinguish its time value – since the new holder would have benefit of this time value and thus would pay the seller for it – hedging can also preserve the time value, since it involves sale of a comparable option.

The mechanics of hedging can best be illustrated with examples. Before we turn to them, two caveats are in order. First, although existing contractual limitations and disclosure requirements are insufficient to deter all options hedging, other constraints (including, notably, the tax law) are likely to achieve this goal. The following examples assume away these constraints. Second, whereas the hedged asset in these examples is an option, the mechanics for hedging stock holdings are similar. As we shall see, executives remain relatively free to hedge stock holdings, since the tax and other barriers to options hedging apply to stock hedging with considerably less force, if at all. To an extent, however, such hedging does not raise the same concerns.

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25 (...continued) disincentive to exercise, although there is an even greater tax disincentive to hedge. For a discussion, see infra Parts III & IV.

26 See infra Part II.A.

27 See infra Part II.B.1.

28 For a discussion, see infra Part I.C.5.
To see the mechanics of options hedging, assume that on January 1, 2000, an executive receives a ten-year option (the “Compensatory Option”) to buy 10,000 shares of her employer’s stock at its January 1, 2000 price of $10. The options are worth $30,000 when granted. This amount derives solely from the option’s time value, since the stock price is not higher than the exercise price. By contract, the executive can never sell the Compensatory Option and cannot exercise it until it “vests” on January 1, 2003.

To hedge immediately, the executive would sell a comparable call option (the “Market Option”) to a derivatives dealer (the “Dealer”). This strategy would yield an immediate cash payment of $30,000, attributable to the Market Option’s time value. As shown on Table 1, the returns on the Market and Compensatory Options would always cancel out, netting to $30,000 (e.g., whether the stock price fell to $5 or rose to $25.)

TABLE 1: RETURN FROM IMMEDIATE HEDGE

<table>
<thead>
<tr>
<th>Maturity Stock Price</th>
<th>Return on Compensatory Option</th>
<th>Return on Market Option</th>
<th>Net Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>0$29</td>
<td>30,000$30</td>
<td>30,000</td>
</tr>
<tr>
<td>25</td>
<td>150,000$31</td>
<td>(120,000)$32</td>
<td>30,000</td>
</tr>
</tbody>
</table>

Alternatively, the executive could wait for the Compensatory Option to appreciate before hedging it. Assume that on January 1, 2001, a year after the Compensatory Option was granted, the Stock has soared from $10 to $100. The Compensatory Option is now worth at least $900,000.

29The return would be zero because the Compensatory Option’s $10 exercise price exceeds the $5 market price, and so the option would expire worthless.

30The return on the Market Option would be the $30,000 proceeds from selling it. The executive would make no payments to the holder of the Market Option, since it would expire worthless.

31Since the stock price has risen $15 above the $10 exercise price, the executive would earn $15 per option or $150,000.

32The executive would be forced to sell stock to the holder of the Market Option for $10 (or $100,000), even though it is worth $25 per share (or $250,000). She thus would lose $150,000 upon exercise, which is offset by the $30,000 proceeds from selling the Market Option. Her net loss would be $120,000.
To lock in past gains without surrendering the right to future gains, the executive would buy the right to sell 10,000 shares for $100 per share in two years. This “put option” would guarantee a $900,000 spread on the Compensatory Option, even if the stock price fell. Yet the put would not obligate her to sell at $100 (e.g., if the stock price rises to $200). This flexibility is expensive. The cost of the put (e.g., $300,000) would reduce her guaranteed return (e.g., from $900,000 to $600,000).

To avoid this expense, the executive could pay for the put by giving her counterparty a call option, instead of cash. In a so-called “collar,” she would buy a put (that would protect her past gains) and would sell a call (that would transfer future gain to the counterparty). For example, the put might let her sell the stock at $100 and the call might let her counterparty buy the stock from her at $120. As Table 2 shows, the collar would lock in a minimum gain of $90 per share or $900,000 (since the executive could always sell the stock for at least $100); likewise, the collar would limit the potential profit to $110 per share (since the counterparty would buy the stock for $120 if it were trading higher).

### Table 2: Return from Post-Appreciation Hedge

<table>
<thead>
<tr>
<th>Maturity Stock Price</th>
<th>Gain on Compensatory Option</th>
<th>Change From Initial Gain of $900,000</th>
<th>Return on Hedge</th>
<th>Net Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>300,000</td>
<td>(600,000)</td>
<td>600,000</td>
<td>900,000</td>
</tr>
<tr>
<td>200</td>
<td>1,900,000</td>
<td>1,000,000</td>
<td>(800,000)</td>
<td>1,100,000</td>
</tr>
</tbody>
</table>

As we shall see, in some cases the derivatives described above would trigger contractual bans or disclosure requirements. To avoid these constraints (but, as we shall see, not the tax constraint), executives could use derivatives

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33 If the stock is trading at $40 in January 1, 2003, she could use the Compensatory Option to buy it for $10 with her Compensatory Option and then sell it for $100 with the put, thereby netting $90 per share, or $900,000.

34 Given this significant expense, this hedging strategy is not popular even when tax and other barriers are absent. Cf. Zurack, supra note 71, at 7 Tbl. 8 (noting as “concern” about put-based hedging strategy that “[u]p-front cost usually [is] higher than collar”).

35 Thus, if the stock fell to $40, she would buy it for $10 with her Compensatory Option and resell it for $100 with her put, leaving her a $90 per share profit (or $900,000). If instead the stock were trading at $200, again she would buy it for $10 and resell it for the $120 she committed to pay on the short call. As a result, her profit would be $110 per share (or $1.1 million).
based, not on the employer’s stock, but on a group (or “basket”) of stocks whose value tracks the employer’s stock price. \textsuperscript{36} For example, an executive at an oil company (“OilCo”) could use a collar on a basket of oil stocks, on the theory that all oil stocks respond similarly to changed market conditions. \textsuperscript{37} Yet, although it is a hedge against industry or market-wide declines, the basket would offer less protection from firm-specific risk (which might, in fact, be of greatest concern to the undiversified executive). For example, if OilCo caused an oil spill but the rest of the industry were prospering, the executive could lose money on both the OilCo option and the hedge. \textsuperscript{38} To avoid this scenario, the executive could represent OilCo disproportionately in the basket. Yet her argument for not disclosing the hedge would become considerably more aggressive. \textsuperscript{39}

\textit{C. Social Cost of Hedging Stock Options}

Now that we have surveyed the mechanics of hedging, this Section describes three social costs raised by options hedging and then explains why options hedging can raise more serious concerns than two other exit strategies: exercise of the option and sale of the stock, and hedging stock holdings.

\textit{1. Incentive Effects}

\textsuperscript{36}See Ownership Reports and Trading by Officers, Directors and Principal Security Holders, Exchange Act Release No. 37,260, reprinted in 61 Fed. Reg. 30376, 30387 (June 14, 1996) (“[N]o Section 16 consequences would flow from an equity swap to the extent that the equity swap relates solely to interests in securities comprising part of a broad-based, publicly traded market basket or index of stocks . . . .”).

\textsuperscript{37}For the returns to track, they should be positively correlated and have comparable volatilities. The most commonly used standard, “tracking error,” equals the square root of the sum of the variances minus twice the covariance. See Morgan Stanley Dean Witter, Global Equity and Derivatives Markets 4 (June 6, 1997).

\textsuperscript{38}See Zurack, supra note 71, at 7 (expressing concern about “tracking” risk).

\textsuperscript{39}Interview with George Spera, Shearman & Sterling (authority not to disclose refers to “broad-based” indices that have been approved for trading). See SEC Rule 16a–1(a)(5)(iii) (“The following interests are deemed not to confer beneficial ownership for purposes of Section 16 of the Act . . . . Interests in securities comprising part of a broad-based, publicly traded market basket or index of stocks, approved for trading by the appropriate governmental authority.”); SEC Rule 16a–1(c)(4) (excluding from definition of derivative security “interests in broad-based index futures, and broad-based publicly traded market baskets of stocks approved for trading by the appropriate federal governmental authority”).
The usual justification for option grants in both academia and the markets is to align the incentives of management and shareholders.\footnote{See, e.g., Michael C. Jensen & William H. Meckling, The Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure, 3 J. Fin. Econ. 305 (1976) (proposing equity compensation as substitute for shareholder monitoring); see also, e.g., David Yermack, Do Corporations Award CEO Stock Options Effectively, 39 J. Fin. Econ. 237, 243 (1995) (noting that options are supposed to reduce agency costs). See Richard DeFusco et al., The Effect of Executive Stock Option Plans on Stockholders and Bondholders, 45 J. Fin. 617, 617 (1990) (“Improved incentives are the reason most often cited by firms seeking shareholder approval for the adoption of stock option plans.”). An option’s incentive effects are borne out by some, but not all, empirical literature. For example, firms that pay relatively more of the CEO’s compensation in equity tend to have higher returns. See Hamid Mehran, Executive Compensation Structure, Ownership, and Firm Performance, 38 J. Fin. Econ. 163, 169, 176-78 (1995) (higher Tobin’s q and higher return on assets). Robert T. Masson, Executive Motivations, Earnings, and Consequent Equity Performance, 79 Journal of Political Economy 1278 (1971) (higher share price). Cf. John J. McConnell & Henri Servaes, Additional Evidence on Equity Ownership and Corporate Value, 27 J. Fin. Econ. 595, 603-9 (1990) (corporate performance improves as management’s stock ownership rises from 0 to 40%, but declines beyond 40%). For a current survey of the literature, see Murphy, supra note 20, at 41-44 (“Overall, the evidence is consistent with the hypothesis that stock-based incentives are important drivers of managerial actions and corporate performance. There remains little direct evidence, however, on the returns a company can expect from introducing aggressive performance-based compensation plans. The evidence is, at best, suggestive. . . .”). For studies that question the effectiveness of options, see Ellis, supra note 7 (offering citations).}

Options also may increase an executive’s appetite for risk, an effect that diversified shareholders typically value because they usually are more risk-tolerant than undiversified managers.\footnote{Option holders favor risk because their return is asymmetric: they share fully in gains but not in losses. See Ronald J. Gilson & Bernard S. Black, The Law and Finance of Corporate Acquisitions 249 (2d ed. 1995) (describing asymmetric return of options and noting their utility as compensation for risk-averse managers).} Once sold or hedged, however, an option no longer motivates an executive because it no longer ties her personal wealth to the stock price.

\footnote{In contrast, an adverse incentive effect of options is that they may discourage managers from paying dividends (assuming the option payoff is not adjusted for dividends). See Calvin H. Johnson, Stock Compensation: The Most Expensive Way to Pay future Cash, 52 SMU L. Rev. 423, 442 (1999); cf. Murphy, supra note 20, at 17 (some options offer dividend adjustments).}
Whereas this concern applies to hedges that replicate sales (e.g., single stock hedging and basket hedging where the employer’s stock is disproportionately represented), it does not apply to hedges that screen out industry or market risk but not firm-specific risk (e.g., a “genuine” basket hedge). Such a hedge is a bet that the employer will outperform the industry or market – a bet that, if anything, should intensify an executive’s motivation. The executive is, in effect, synthesizing a “market adjusted” option. 42

2. Transparency and Transactions Costs

The case against hedging is strongest if options create useful incentives. Yet even if they do not, it is better for the firm not to give options in the first place than for executives to alter the bargain unilaterally. 43 Hedging imposes significant transactions costs on the executive. Moreover, to the extent that hedging can be done secretly with third parties, boards and shareholders are less able to defend their interests. 44 Only the executive knows her “true” pay. Without this information, it is harder for firms to craft optimal compensation contracts and for shareholders to evaluate the firm.

As long as firms can substitute other types of pay, there is no social need for hedging even if options constitute inefficient compensation. In fact, firms can offer a host of alternatives. 45 Nor must the firm give options, as opposed to other “performance based” pay (such as bonuses based on earnings), in order to claim a tax deduction. 46

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42 According to economists, these options offer better incentive effects than conventional options. See sources cited in note 11, supra.

43 Cf. Melvin Aron Eisenberg, The Structure of Corporation Law, 89 Colum. L. Rev. 1461, 1474 (1989) (“[A]gents whose interests may materially diverge from the interests of their principals should not have the power to unilaterally determine or materially vary the rules that govern those divergences of interests.”).

44 See infra Part II.B.1 (noting that noninsiders are not obligated to disclose hedges and insiders do not have to disclose basket hedges). To the extent disclosure obligations are improved, as recommended by this Article, this concern is diminished.

45 See generally Kroll, supra note 21 (discussing various methods of compensation).

46 Under Section 162(m), annual compensation above $1 million generally is not deductible unless it is “performance based,” a category that includes options but is not limited to them. For a discussion, see infra Part III.A.2.
Admittedly, though, the favorable accounting treatment cannot be duplicated (i.e., certain options never cause expense on the income statement).\textsuperscript{47} To the extent the accounting rules induce overuse of options\textsuperscript{48} – including overuse of a particular type of option\textsuperscript{49} – hedging might be justified as a “second best” way to undo these distortions. Even so, it would be better to fix the accounting rule. Since this regime already imposes information costs by understating compensation expense, it may prove unwise to “correct” its distortions with a practice, hedging, that would exacerbate these information costs. Even absent accounting reform, moreover, the costs of overusing options (such as unnecessary risk premiums that firms might pay to managers) arguably are preferable to the transaction and information costs of hedging.

3. Pareto Superior Compensation Contracts

In undermining the transparency of compensation contracts, hedging can adversely affect the executive, as well as the firm and shareholders. An executive usually wants a premium to accept options instead of cash, since options force her

\textsuperscript{47}As long as options have a fixed exercise price at least equal to the stock price on the grant date, they do not give rise to expense on the income statement when they are granted or exercised. All the company has to do (and this requirement has been imposed only recently) is to list the option’s estimated value in a footnote. For a discussion of these rules, see Pat McConnell, Employee Stock Option Expense Pro Forma Impact on EPS and Operating Margins, Bear Stearns Equity Research 2 (May 1, 1998); Cf. James A. Angel & Douglas M. McCabe, market Adjusted Options for Executive Compensation (Oct. 28, 1997) (unpublished manuscript) (arguing that indexed options are rare because they do not receive favorable accounting treatment). The inaccuracy of this approach is easy to see. Even an out-of-the-money option has time value (i.e., the chance to make a profit if the stock price rises without parting with the exercise price). See supra Part I.A. While the firm does not have to spend cash to supply the option, it does forgo cash it could have earned by selling options in the capital markets.

\textsuperscript{48}The extent to which accounting rules influence managers’ behavior is the subject of debate. For a discussion, see, e.g., Claire A. Hill, Why Financial Appearances Might Matter: An Explanation for “Dirty Pooling” and Some Other Types of Financial Cosmetics,” 22 De I. J. Corp. L. 141 (1997).

\textsuperscript{49}Favorable accounting treatment is not available to market-adjusted options (i.e., which pay only those who outperform the market or a peer group). As noted above, executives might transform a conventional option to a market-adjusted one with a genuine basket hedge. See Part I.C.1., supra. As we shall see, a disadvantage of the tax barrier is that it also blocks these pro-shareholder hedges. See Part V.C, infra.
to defer consumption and bear risk. The risk is especially unappealing if she expects the stock price to fall. Likewise, options make her even less diversified, since her professional reputation is already tied to the firm’s success. In a well-functioning market, boards should not offer a premium if they expect the executives to undo the desired incentive by hedging. For the same reason, the market should discount the firm’s stock. To head off these penalties, executives may wish to precommit not to hedge. Otherwise, a Pareto superior contract – a premium for the executive, the incentive effect for shareholders – would not be attained.

4. Comparison with Exercise of Option and Sale of Stock

Just as hedging terminates an option’s incentive function, so too will exercise of the option and sale of the stock received. Even so, hedging is potentially more detrimental in several ways. First, as long as vesting limits apply only to exercise, but not to hedging, the hedging can eliminate all an executive’s exposure to the stock price in a way that exercise cannot. Second, as long as executives do not disclose all types of hedging, the practice can obstruct transparency in contracting in a way that exercise will not (i.e., because the firm, as counterparty, is always on notice of exercise). Third, hedging evades a financial penalty – loss of time value – that discourages exercise when executives otherwise are free to take this step. Each of the first three concerns arises because existing contracts and disclosure obligations address hedging less adequately than exercise. If these disparities can be adequately rectified – and I believe they can be to a considerable extent – hedging could prove no worse than exercise (except for the

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51Of course, if the executive has inside information that the stock price will rise, she will accept options without a premium. See David Yermack, Good Timing: CEO Stock Option Awards and Company News Announcements, 52 J. Fin. 449 (1997) (presenting evidence that executives increase levels of option compensation prior to favorable announcements).

52Milgrom & Roberts, supra note 51, at 430 (manager’s human capital is tied to firm performance).

53Boards might favor options, not for the incentive effect, but for their favorable accounting treatment. See part VI.C., infra. If so, boards might object less strenuously to hedging. Yet this accounting arbitrage – granting options so they will be hedged – should not be encouraged, as it interferes with transparency. See supra Part I.C.2.

54Of course, her human capital would remain at risk.
added transaction costs it entails). On the other hand, other concerns arise if contracts can never govern hedging as effectively as exercise (e.g., because hedging is costlier to monitor). For instance, firms might respond with a “lemon” strategy that offers fewer options than executives want, thereby forgoing a Pareto-superior compensation contract.

5. Comparison with Stock Hedging

Whereas we have focused on governance concerns raised by options hedging, such concerns also when an executive instead hedges stock (e.g., acquired in a market purchase or through exercise of an option). As we shall see, the tax and other constraints on options hedging do not apply to stock hedging.

This could prove unfortunate because executive stock ownership can be another way to reduce agency costs. Just as if the executive had sold the shares, this benefit is lost if the executive hedges. If such hedging is not disclosed, moreover, shareholders could be mislead about the degree of true executive share ownership in valuing the company. In addition, since the executive could still vote her hedged shares, she might use the vote to entrench her position.

Yet the governance concerns raised by stock hedging are less severe than those raised by options hedging. Unlike options, which increase an executive’s appetite for risk, stock ownership can increase agency costs by inducing the executive to diversify or hedge excessively at the firm level. In some cases, shareholders might want executives to hedge their stock. As long as the executive has a large enough pool of options and these cannot be hedged, moreover, the incremental exposure from stock holdings may not be as important; in other words, executives’ ability to hedge stock is less of a concern because they cannot hedge options, and thus have an unhedgeable core of exposure. Finally, whereas options are the subject of a contract between the firm and executive, stock holdings are less likely to be contractually required. Unlike options hedging, then, stock hedging generally does not obstruct transparency or Pareto superiority in compensation contracts.

55See, e.g., Peter Tufano, Who Manages Risk? An Empirical Examination of Risk Management Practices in the Gold Mining Industry, 51 J. Fin. 1097 (1996) (firms whose managers hold more stock are more likely to hedge gold price risk than firms whose managers hold more options). See also Brian Hall (unpublished manuscript, on file with author) (arguing that options create better incentives than stock).

56Stock hedging would raise these concerns, however, in cases where the firm requires executives to own a minimum amount of stock and compensates them for doing so.
D. Interest of Executives in Hedging

Whereas we have seen that options hedging raises serious governance concerns, the practice could prove tempting to executives. Indeed, because executives frequently ask about the feasibility of options hedging, investment banks have invested considerable time and money in trying (thus far unsuccessfully) to develop a hedging strategy that does not trigger the tax and other barriers described below.\(^57\) At first blush, executives’ interest in hedging may be surprising since hedging may induce reductions in future pay.\(^58\) Yet the executive’s true self interest is for no one to know (or assume) that she is hedging. Hedging in secret, which is sometimes plausible under current law,\(^59\) should not trigger reductions in future pay, even if the board is sufficiently independent to punish the executive (which may not always be the case). Similarly, the market would not have

\(^{57}\)See, e.g., Randall Smith, For Internet Glitterati, It’s a Matter of Timing, Wall St. J., June 28, 1999, at C1 (describing “cottage industry” emerging among Wall Street derivatives experts “to advise Silicon Valley executives whose wealth may be tied up in stock options”). Shaifali Puri, New Tools for the Options Crowd, Fortune, Nov. 10, 1997, at 308 (describing “a growing number of banks’ private banking units” marketing derivatives to help executives hedge); Deger, supra note 79 (noting that “clients hear about such [hedging] instruments periodically from investment bankers”); Kroll, supra note 7, at 82 (deeming requests for assistance in diversifying “a common question that compensation professionals must address” and noting that “[i]n recent years, investment banking firms have marketed [diversification strategies such as cashless collars] among executives”).

\(^{58}\)See Part I.C.3, supra. A related concern is that the counterparty might offer a discounted “lemon” price on the hedge, since hedging by an executive could be a negative signal. Yet an investment bank, the usual counterparty, would not demand this discount if (as is likely) it is hedging its own position by selling short in the public market. See Lewis R. Steinberg, Using OTC Equity derivatives For High-Net-Worth Individuals, in The Use of Derivatives in Tax Planning 211, 242 n. 110 (Frank Fabozzi ed. 1998) (derivatives dealers “generally will not enter into ‘long’ side of a hedging transaction” unless they can hedge by shorting the underlying equity”). Nor would the investment bank worry about the price it will get on the short sales, because these can be completed before the executive discloses the hedge. See Section 16(a) (allowing disclosure up to 10 days after sale).

\(^{59}\)See infra Part II.B.1
Recognizing their inability to detect hedging, boards and the market might assume an average level of hedging. Yet such “lemon pricing” could give executives incentive to hedge more than average. See Eisenberg, supra note 44, at 1523 (when information is imperfect, shareholders may assume governance of average quality). This Article argues that the tax barrier (and, to an extent, contractual and securities law barriers) avert this vicious cycle by persuading all concerned that U.S. executives cannot hedge stock options.

A hedged executive, after all, is protected from declines in the stock price (except their reputational effects), assuming she hedges before these declines are triggered.

Cf. Heath, supra note 7, at 603 (diversification and liquidity encourage executives to exercise).

This desire to hedge does not derive from risk aversion, but from the executive’s intertemporal utility function (i.e., her preference for current rather than future consumption). Cf. Victor Goldberg, Aversion to Risk Aversion in the New Institutional Economics, 146 J.I.T.I. 216, 216 (1990) (arguing that scholars should “invoke attitudes toward risk only as a last resort”). Note that executives cannot necessarily finance consumption with borrowing, because lenders will be unwilling to risk lending against the full value of an unhedged stock option.

Cf. Heath, supra note 7, at 623 (noting empirical evidence that executives exercise in order to lock in gains above a “reference point” based on previous year’s maximum value). To an extent, the executive may expect the firm to “reprice” her options. See Christopher Gay, Hard To Lose, Wall St. J., April 8, 1999, at R6 (when market dips, executives frequently seek to have exercise price on existing grants “repriced,” i.e., reduced to current market levels). Yet recent accounting changes discourage such repricing. See Jennifer Reingold, Slimmer Rewards for a Job Poorly Done, Bus. Wk., Feb. 15, 1999, at 38 (noting FASB’s proposal to force firms to list expense of repriced options on income statement). An executive who hedges, moreover, still benefits from the repricing; it offers her new opportunity for gain (i.e., the difference between the old and new exercise prices) that she has not sold through the hedge.
wealth subject to firm specific risk, and thus the executive’s interest in diversifying.

II. EXISTING CONTRACTUAL AND SECURITIES-LAW BARRIERS TO OPTIONS HEDGING

The prior Part showed that options hedging can have adverse consequences for shareholders (and, indeed, for executives), but the practice could prove tempting to executives. Given these competing interests, we might expect a resolution by contract, perhaps with some input from the securities laws. This Part describes existing contractual and securities-law constraints on options hedging. Although these constraints block some instances of this practice, they contain significant gaps that are filled by the tax law; contract and the securities laws also contain even fewer restrictions on stock hedging and, as we shall see, these larger gaps generally are not filled by the tax law.

These gaps should not be viewed as inevitable or irreparable. Despite the potential costs of relying on contract or the securities laws, there are significant advantages of doing so. These competing considerations are discussed in Part V, and recommendations are offered in Part VI. But first, Part II begins by surveying the current state of contractual and securities law constraints.

65See Ruth Simon, Tax Strategies Aid Option Gains, Wall St. J., June 28, 1999, at C1 (“An average executive is going to have three-quarters of his wealth tied upon in options. . . . Planning around those options is essential.”) (quoting Arthur Kroll, a N.Y. executive compensation consultant); Zurack et al, supra note 22, at 5 (“We have found . . . that even the most bullish executives are concerned about the lack of diversification in their personal portfolio because of its high concentration of ISOs [employee stock options].”); Pallavi Gogoi, False Impressions: More Companies Require Top Executives to Own Stock. The Result Isn’t What Everybody Expected, Wall St. J., April 8, 1999, at R3 (“A lot of executives, especially below the CEO level, are under pressure from their financial advisers to diversify and not keep all their assets in one company’s stock.”) (quoting Paula Todd, head of executive compensation research and development at Towers Perrin). Cf. Ofek & Yermack, supra note 7 (desire for diversification prompts executives to sell stock received from exercising options).

66Especially for executives who have more wealth than they can consume, the dispositive factor may not be financial. As Professors Loewenstein and Issacharoff have shown, people especially value what they earn through superior performance. See George Loewenstein & Samuel Issacharoff, Source Dependence in the Valuation of Objects, 7 J. Behav. Decis. 157, 18 (1994) (noting studies showing that people prefer to bet on their own judgments than on chance devices with matched probabilities of winning). To some, past appreciation on an option is evidence of talent, and hedging can be a way to protect this trophy.
A. Existing Contractual Constraints on Options Hedging

Just as firms constrain exercise via contract, so too should they constrain hedging; in so doing, they would largely address many of the concerns described above. Nevertheless, direct contractual limits on options hedging are relatively uncommon.67 Whereas the typical options plan bars transfer or assignment of the option – that is, sales – they do not bar hedging (i.e., a separate transaction in which a different option is sold).68 Firms that constrain hedging usually do so in “trading policies,” which are seldom disclosed to the public.69 I have not done a detailed survey, given the difficulty of gaining access to these policies. My understanding from practitioners is that the policies vary widely and so it is difficult to generalize about their contents. These experts report that many firms do not have them. Where applicable, these policies typically cover only the most senior executives and they do not cover basket hedging.70

Although direct contractual constraints are rare, a related contractual provision – bans on pledging an option – could raise the transactions costs of options hedging, although, by itself, it would not necessarily stop the practice. An executive would encounter this constraint if, in hedging an option, she wanted

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67 A recommendation of this Article is that they should be universal. For a discussion, see infra Part VI.A.

68 See, e.g., Boeing Corp., Proxy (Apr. 27, 1998) (options are “exercisable only by [the employee who received the grant], and shall not be assignable or transferable by such recipient.”).

69 For a rare exception, see Tetra Technologies Inc., Proxy (May 15, 1998) (“The insider trading policy also prohibits directors, officers and employees of the Company from purchasing securities of the Company on margin or in short sales and from buying and selling puts, calls or options involving securities of the Company (other than employee stock options).”).

70 Interview with George Spera, Shearman & Sterling (many firms do not have trading policies that restrict hedging, and some that do govern only the most senior executives); Interview with Barbara Nims, Davis Polk & Wardwell (among firms that have considered the issue, hedging restrictions are fairly common; yet many firms have not considered the issue). Cf. Mark A. Zurack et al, Goldman Sachs Equity Derivatives Research: Investment Considerations for Employee Stock Options, at 7 Tbl. 8 (June 30, 1998) (unpublished manuscript, on file with author) (pamphlet issued by Goldman Sachs on hedging NQOs does not mention contractual restrictions, presumably because they are not common). Conversations with investment bankers familiar with efforts to develop options hedging techniques confirm that contractual bans on options hedging are relatively uncommon (except in the financial industry, perhaps because of their greater sophistication about derivatives). These individuals declined to go on record.
either to borrow against its value or to sell the right to future option gain. The latter step, an appealing way to pay for loss protection, commits the executive to a potentially unlimited obligation since the stock price can rise without limit. As a result, the derivatives-dealer counterparty will want the executive to pledge something of value to secure this obligation. Yet option plans typically bar pledges of options. Unless the executive has stock to pledge, she must pledge something whose value will not track her obligation (e.g., mutual fund investments purchased with hedging proceeds). As a result, the counterparty must monitor the relative value of the collateral and obligation, thereby adding to the hedge’s cost, in some cases quite considerably.

**B. Existing Securities Laws Constraints on Options Hedging**

1. **Disclosure Obligations**

Given the potential for reputational sanctions, executives might not hedge options if they had to disclose the transaction. However, disclosure obligations are somewhat porous under current law. Until the mid-1990s, many believed there were no disclosure obligations at all for derivatives transactions. Today, there still are no disclosure obligations, to the firm or the market, for executives below the

71 As discussed above, option plans usually prevent executives from assigning their options. A pledge is ordinarily considered an assignment. Nor is an option effective collateral. If the executive defaults, the counterparty may be unable to exercise or sell it. See Zurack, et al., supra note 22, at 7 (noting that option “will not likely serve as usable collateral”).

72 The executive presumably does not have stock to pledge; otherwise, she would hedge the stock instead of options, since the tax barrier is less daunting for the former. See Part IV.E, supra.

73 As for other transactions costs, the investment bank’s fee usually is not a barrier, except in preventing executives from paying in cash for loss protection. See Part I.B, supra. In addition, long term options, necessary for options hedging, have recently become available. See SIA Disagrees with Coalition on Intermarket Coordination, 98 TNT 238-20 (reprinting letter from Anthony J. Cetta to Lon B. Smith) (noting that over the counter market offers hedges with terms of up to ten years). Finally, an executive may be concerned about losing unvested options upon leaving the firm. If she hedges and the options appreciate, she will lose money on the hedge while forfeiting the offsetting gain. If she leaves voluntarily, though, her new employer may “gross her up” for options left behind. If she leaves involuntarily, her severance package may protect her. See Murphy, supra note 20, at 16 (severance packages often include accelerated vesting provisions). In any event, executives presumably are more likely to be fired when the firm is faring poorly, so that the options would not be deep in the money.
rank of “insider” under Section 16.\textsuperscript{74} A 1996 SEC release clarified that insiders must disclose the most straightforward hedges\textsuperscript{75} – transactions in which the derivative’s value is explicitly based on the employer’s stock price. However, insiders arguably can avoid this obligation with basket hedges (in which the derivative’s value is based, not only on the employer’s stock price, but on other assets as well).\textsuperscript{76}

Moreover, the press has reported a perception among derivatives dealers and their advisors that the disclosure obligations for derivatives are not always honored.\textsuperscript{77} Surprisingly, even hedges that are disclosed may not come to the market’s attention. According to Professors Bettis, Bizjak and Lemmon, “When filed, [insider hedging] transactions appear only on Table II of Form 4 filed by insiders with the SEC. To our knowledge, none of the services that provide insider trading data to the financial markets (and others) generally provide the data needed to identify derivative instrument hedging transactions.”\textsuperscript{78}

2. Speculation and Short Positions: Section 16(c)

\textsuperscript{74} Incentive compensation may work less effectively on noninsiders than on the CEO, since their actions have less direct impact on the stock price; thus, hedging by noninsiders may be less of a concern. Yet noninsiders do potentially influence the firm’s performance, at least to an extent. They also may hold very large grants, even individually, but certainly in the aggregate. See, e.g., Helyar & Lublin, supra note 2, at B4 (noting that by 1997, 35% of 350 major companies had option programs for all or a majority of workers and that, for example, 1200 of General Electric Co’s employees have stock options valued at more than $1 million).

\textsuperscript{75} A 1996 SEC release requires disclosure of hedging. See Ownership Reports and Trading by Officers, Directors and Principal Security Holders, Exchange Act Release No. 37,260, reprinted in 61 Fed. Reg. 30376, 30387 (June 14, 1996) (“Section 16 consequences arise from an equity swap transaction where either party to the transaction is a Section 16 insider with respect to a security to which the swap agreement relates.”).

\textsuperscript{76} For an example, see Part I.B.

\textsuperscript{77} See Ofick & Yermack, supra note ?.

\textsuperscript{78} Bettis et. al, supra note 2, at 2; see also Renee Deger, Locked In? Buy That New Mansion Now, \url{www.callaw.com/stories/edt0923.html} (“Any disclosure [of hedging with derivatives] is often done in an obscure or overlooked manner.”).

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The most effective securities law constraint on options hedging is Section 16(c), but it too is incomplete. Designed to prevent insider trading and to keep managers from trying to depress their employer’s stock price, this rule makes it illegal for insiders to sell their employer’s stock “short.” The gap in the statute, though, is that it disallows only short sales, without addressing derivatives that offer comparable economic returns. Hedging with these derivatives is in fact permitted by a regulation, Rule 16c-4.

Even so, this regulation does not necessarily bless options hedging (although it clearly authorizes stock hedging). The SEC staff interprets the rule to permit hedging only if the executive owns the stock itself; but not derivatives such as options. For example, an insider can buy a put on 100 shares if she owns 100 shares, but not if she owns only an option to buy 100 shares. Nevertheless,

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79 See Securities Exchange Act of 1934, Pub. L. No. 73-291, sec. 16(c), 48 Stat.881 (codified as amended at 15 U.S.C. sec. 78p(c)) (“It shall be unlawful for any [insider] . . . directly or indirectly, to sell any security of such issuer . . . if the person selling the security of his principal . . . does not own the security sold . . . .”). Unlike section 16(b), which allows plaintiffs to bring civil suits, section 16(c) outlaws the practice. See Steve Thel, The Genius of Section 16: Regulating the Management of Publicly Held Companies, 42 Hastings L.J. 391, 405 (1991) (contrasting approaches of section 16(b) and 16(c)).

80 Congress added Section 16(c) in response to a widely publicized 1934 short sale by Albert Wiggins, the Chairman of the Board of Chase National Bank. According to Professor Thel, Congress was responding to three concerns: Wiggins’ access to inside information; his ability to conceal his activities from the public; and his financial incentive to depress the stock price. See Thel, supra note 80, at 428.

81 A short sale is a bet that the stock price will decline, implemented by selling borrowed shares. The seller promises to return shares to the lender in the future, and hopes declines in the stock price will make these “replacement” shares cheaper. See Schizer, supra note 127.

82 See 17 C.F.R. sec. 240.16c-4. Specifically, the rule allows “put equivalent positions” (i.e., derivatives that appreciate as the stock price declines), but only “so long as the amount of securities underlying the put equivalent position does not exceed the amount of underlying securities otherwise owned.” Id.

83 This distinction, which transforms Rule 16c–4 into a barrier against options hedging, was not meant to safeguard the incentive effects of options. Instead, the SEC invoked congressional concerns about speculation:

“The most abusive investment pools of the early 1930’s (that involved short (continued...)
aggressive insiders might be tempted to disregard this interpretation because the SEC has not applied it all cases.84 In any event, rule 16c-4 does not prevent insiders from using basket hedges (including, arguably, ones designed to track the employer’s stock) and it does not apply to noninsiders. As a result, the rule, by itself, would fail to block many instances of options hedging.

3. Section 16(b)

The “short swing profits” rule of Section 16(b) proves not to be a constraint here. In general, it allows the firm to recover any profit the firm’s insiders earn from buying and selling issuer stock within six months. Whereas hedging with a derivative is treated as a “matcheable” sale under recently revised rules, an insider typically can avoid this liability by not buying any stock85 within six months of entering into a hedge.86

4. Material Information and Rule 10b-5

83(...continued)
selling) involved short selling of the stock while holding options to protect against a price increase. In each pool mentioned in the legislative history, Congress was quite concerned that the pool insiders would not exercise the option but would instead repurchase the stock in the open market. This practice was viewed as unethical. Based on this Congressional concern, no relief is proposed for short selling against derivative securities.” See SEC Release Nos. 34-26333; 35-24768, 1988 SEC Lexis 2380 (proposing and explaining Rule 16c-4).

84For example, two recent SEC letters allow insiders to hedge even though they hold convertible preferred stock (i.e., a derivative) instead of the underlying common. The letters offer no reasoning to explain the departure from the SEC’s usual view. See Berkshire Hathaway, Inc., SEC No-Action Letter, 1997 SEC No-Act Lexis 407 (March 12, 1997): Time Warner, SEC No-Action Letter, 1995 SEC No-Act. Lexis 627 (Aug. 9, 1995).

85An executive can hedge within six months of receiving an option, because the latter is not a matcheable transaction if it satisfies certain criteria. On the hedge, the “matcheable” date is when it begins, not when it is settled.

86Section 16(b) can be more daunting when the executive “cash settles” the hedge (e.g., to avoid securities law requirements for delivering stock, such as the seller’s obligation to deliver a prospectus or the buyer’s obligation not to resell privately-placed shares for a year). Because cash settlement of a “short” derivative is treated as a purchase, section 16(b) is triggered if the executive sells stock within six months of cash-settling a hedge. She may need to sell, though, to raise money for cash settlement. To avoid liability, the executive might cash-settle with borrowed funds or delay settlement until she retires and is no longer an insider.
As discussed above, though, delaying the timing may be enough to prevent the hedging. The tax risks will discourage executives unless they are certain the stock price will decline. Timing restrictions can undermine this certainty.

An exception is when the hedge itself is material. Yet very senior executives, whose hedging is most likely to be material, already are disclosing single stock hedges, and the materiality of a basket hedge could be debatable.

C. Summary of Existing Contractual and Securities Law Constraints

Whereas existing contractual and securities law constraints are sufficient to block many instances of options hedging, they would not catch them all. Executives below the rank of insider are relatively unconstrained. They do not have to disclose their hedges and generally are free to engage even in single-stock hedges, subject only to transaction costs (e.g., arising from constraints on pledging). Insiders are relatively more constrained. They would have to disclose single-stock option hedges and might be barred from them altogether under the SEC’s interpretation of rule 16c-4. Nevertheless, insiders generally can avoid these constraints with a basket hedge. If they are aggressive – and, as the press has noted, some tend to be aggressive in this context, perhaps on the theory that derivatives transactions are hard for the firm or SEC to detect – executives might even use a “basket” that almost perfectly replicates the performance of their employers’ stock. The point is, then, that contractual and securities law constraints have potentially significant gaps. As we see in the next two Parts, these are filled by an unexpected ally, the tax law – but in an inflexible and potentially unstable way. Given these shortcomings, this Article’s recommendation is to refine the contractual and securities law constraints. But first, we turn to the U.S. tax law’s role in backstopping the incentive effect of options.

III. TAX DISINCENTIVES TO EXERCISE

The last two Parts show that executives sometimes have a private interest in exercising or hedging options to finance consumption or diversification, and

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87 As discussed above, though, delaying the timing may be enough to prevent the hedging. The tax risks will discourage executives unless they are certain the stock price will decline. Timing restrictions can undermine this certainty.

88 See infra Part II.B.1. Section 16(a) does not require disclosure until after the hedge is complete. See id. In some circumstances, Rule 10b-5 may force the executive to accelerate disclosure.
that contract and the securities laws police exercise more directly and effectively than hedging. The purpose of this Part and Part IV is to show the tax law’s role in reinforcing contractual and securities-law constraints on these exit strategies.

Before turning to tax law constraints on hedging, which are discussed in Part IV, we discuss two issues in Part III. First, given the tax law’s important role in tying executives to their stock options, to what extent did Congress intend to pursue this corporate governance goal with the tax law? Section A begins with two measures – the incentive stock option rules and Section 162(m)’s exception for performance-based pay – that arguably are deliberate efforts to encourage receipt (and, in the former case, retention) of options. As we shall see, these measures, by themselves, have not been especially significant. Rather, as Section B shows, the most effective tax constraint on exercising options derives from tax rules for so-called nonqualified options, which were not fashioned with corporate governance in mind. Even so, these rules discourage (though they do not prevent) executives from exercising options. Part IV then discusses tax constraints on hedging options, which are even more effective and are also largely inadvertent.

A. Deliberate Tax Preferences for Options

Although Congress has used the tax law to promote the incentive value of options – through special rules for “incentive” stock options and, arguably, in Section 162(m)’s exception for performance-based pay – these intentional efforts have achieved less than unintended ones.

1. Incentive Stock Options

In an attempt to favor options, the Code purports to treat “incentive” stock options (“ISOs”) more favorably than generic “nonqualified” options (“NQOs”). An ISO is not taxed at ordinary rates when exercised, as is an NQO; instead, the ISO is taxed at capital gain rates, and the tax is deferred until the executive sells the stock received upon exercise. To ensure that executives keep the option, Congress conditions this favorable treatment on a holding period for both the option and the stock acquired through it. Yet ISOs are uncommon because the

89See Michael W. Melton, The Alchemy of Incentive Options – Turning Employee Income Into Gold, 68 Cornell L. Rev. 488, 500 (1983) (noting intended incentive effect of ISOs). The tax rules for ISOs are in Section 422 et seq. and the rules for NQOs are in Section 83. For a good summary, see Melton, supra, at 498-500.

90See Section 421(a)(1); Melton, supra note 90, at 500. For the rules on NQOs, see infra note 101 and accompanying text.

91See Section 422(a)(1). See Barbara J. Raasch & Judith L. Rowland,
dollar value of annual ISO grants is strictly limited.\textsuperscript{92} Nor is the tax treatment of
ISOs as generous as it seems. The executive often owes alternative minimum tax
(“AMT”) upon exercising the option,\textsuperscript{93} and the firm cannot take a deduction, as it
can for an NQO. Ironically, an NQO is usually more tax-efficient.\textsuperscript{94}

\textit{2. 162(m)}

Under section 162(m), firms cannot deduct annual compensation of key
employees above $1 million.\textsuperscript{95} However, this limit does not apply to certain
compensation “payable solely on account of the attainment of one or more
performance goals.”\textsuperscript{96} Since Congress explained the limit as a way to reduce
executive compensation,\textsuperscript{97} the explosion of option grants suggests the measure

\textsuperscript{91}(...continued)

Stock Option Planning, Taxes, Jan. 1999, at 41. It is also difficult to hedge ISOs.
See Part IV.D, infra.

\textsuperscript{92}See Section 422(d) (underlying stock cannot be worth more than
$100,000 for annual ISO grant).

\textsuperscript{93}See Section 56(b)(3) (deeming ISO gains a preference subject to
alternative minimum tax); Raasch & Rowland, supra note 92, at 41. The AMT is
supposed to ensure that all profitable taxpayers pay a minimum tax: it imposes tax
on those who make excessive use of so-called tax preferences such as favorable
depreciation methods, tax-exempt interest on certain bonds, etc. See Section 57.
For a discussion, see generally Daniel N. Shaviro, Perception, Reality and
of a congressional proposal to repeal the AMT, see Part IV.D.1.

\textsuperscript{94}See Myron S. Scholes & Mark A. Wolfson, Taxes and Business Strategy
187-90 (1992) (noting that NQOs can offer executive the same after-tax payment
as an ISO at lower cost to the firm, as long as firm and executive are subject to
comparable tax rates).

\textsuperscript{95}See Section 162(m)(1).

\textsuperscript{96}See Section 162(m)(4)(C). The legislative history indicates that this
performance-pay exception generally includes executive stock options. House
Report, reprinted at CCH 21,521. (“Stock options or other stock appreciation
rights generally are treated as meeting the exception for performance-based
compensation, provided that the requirements for outside director and shareholder
approval are met.”) The options also may not be in-the-money when granted. Id.

\textsuperscript{97}Draft of Finance Committee Revenue Provisions at 69, reprinted in
Omnibus Budget Reconciliation Act of 1993 (S. 1134) title VIII, RIA United
(continued...)
backfired (or was never intended to work). A more charitable reading, though, is that section 162(m) was supposed to promote options (as well as other “performance compensation,” such as bonuses based on accounting earnings).\textsuperscript{98} Yet as a preference for options, Section 162(m) has a notable gap; it contains no unequivocal ban on selling or hedging them.\textsuperscript{99}

\textbf{B. The Accidental Tax Disincentive to Exercise of NQOs}

Ironically, the tax law aids corporate governance through the rules for NQOs, even though these were forged with hardly a thought to this issue. Executives are encouraged to hold their NQOs, instead of exercising them, because tax is deferred until exercise.\textsuperscript{100} This deferral reduces the tax by allowing

\textsuperscript{97}(...continued) States Tax Reporter, June 1993 (“Recently, the amount of compensation received by corporate executives has been the subject of scrutiny and criticism. The committee believes that excessive compensation will be reduced [by the $1 million cap].”).

\textsuperscript{98}Congressional hearings contained numerous endorsements of performance based pay. For example, Senator Baucus said, “corporations need to inject performance, scrutiny, and disclosure into the executive compensation equation. And if they refuse, we have an obligation to ensure that tax policy or other public policy provides no comfort.” Executive Compensation Hearings on S. 2298, H.R. 4727 and H.R. 5260 Before the Subcomm. on Taxation of the Senate Comm. on Finance, 102d Cong. (1992). Likewise, a Treasury official at the time, Catherine Creech, said at a meeting of the DC bar that 162(m) “was not intended to be a revenue raising provision, but a behavior shaping provision. The exception for performance based compensation is not a loophole.” Megan Reilly, Former Treasury Official discusses Executive Compensation Cap, 62 Tax Notes 747 (Feb. 3, 1994).

\textsuperscript{99}The legislative history almost stumbles into conditioning the firm’s deduction on the absence of hedging by providing: “[I]f an executive is otherwise protected from risk of loss (such as through automatic repricing), the compensation is not performance-based.” See id. Even assuming legislative history is authoritative, though, the taint seems to arise only if the firm, and not a third party, supplies this loss protection. Although the firm’s role is not an explicit condition, it is implied by the automatic repricing example because only the firm can reprice its options. In addition, the general principle elucidated by this language is that “stock based compensation” — a phrase that describes the arrangement with the firm, and not with third parties — must not be “dependent on factors other than corporate performance.”

\textsuperscript{100}Receipt of property as compensation generally is taxable. See United (continued...)
continued investment of amounts that otherwise would fund the tax. \(^{101}\) Balanced against this “lock-in,” though, is a countervailing tax reason to exercise. The executive can reinvest in an asset that yields capital gain, taxed at a lower rate; the option, in contrast, yields only ordinary income. \(^{102}\) Of course, this switch is no blessing if the new investment generates less valuable capital losses. \(^{103}\) Yet if the

\(^{101}\) For a discussion of the tax reducing effects of deferral, see David M. Schizer, Realization as Subsidy, 73 N.Y.U. L. Rev. 1549 (1998). Realization is the rule that defers tax on appreciated property until the property is sold.

\(^{102}\) See Section 83(a)(1) (providing for inclusion in gross income of person who performed services). Accordingly, this “lock-in” is weaker than the analogous one caused by the realization rule. For a discussion of the latter, see Schizer, supra note 102, at 1610.

\(^{103}\) Loss on the option effectively is ordinary loss — or, to be precise, a reduction in ordinary income that otherwise would accrue upon exercise. If option losses and gains are equally probable, there is no tax advantage to exercising the option; the prospect of favored capital gains is balanced against the prospect of disfavored capital losses. Cf. Joseph Bankman & Thomas Griffith, Is the Debate Between an Income Tax and a Consumption Tax a Debate About Risk? Does It Matter?, 47 Tax L. Rev. 377, 396-400) (under assumed conditions, the tax rate on risk does not matter; the tax rate is relevant only in its effect on the risk free return); David F. Bradford, Fixing Realization Accounting: Symmetry, Consistency and Correctness in the Taxation of Financial Instruments, 50 Tax L. Rev. 731, 763 (1995) (same). Nor does it pay to exercise the option merely to reduce the tax rate on the risk free return (“\(R\)”). Even though the after-tax rate of return is increased (i.e., from \(0.6R\) to \(0.8R\)), the amount invested (“\(I\)” shrinks even more dramatically (from \(I\) to \(0.6I\), since \(0.4I\) will fund the tax). The risk free return on the option (\(0.6RI\)) will always exceed the risk free return on the smaller new investment (continued...)
option and the alternative are each expected to appreciate, the tax law creates competing incentives: Although exercising the option increases her after-tax rate of return, it depletes her investment’s size. As the following examples show, the tax incentive to keep the option is usually the stronger one. It also is reinforced by a nontax incentive to keep the option, the ability to earn a return on the exercise price before paying it. Ultimately, though, these incentives are not likely to prevent exercise in all cases, but to discourage it in marginal ones.\footnote{104} In a sense, they reinforce existing contractual restrictions on exercise, but could never substitute for them.

1. \textit{Illustrative Examples}

Executives might exercise their option and sell the stock for at least three reasons: to diversify; to finance consumption; or to avoid expected losses.\footnote{105} The tax disincentive is more formidable in the first two scenarios than in the third.

\hspace{1cm} a. \textit{Diversification}

Assume the executive has an option to buy one share of EmployerCo stock at $50 and the stock is now trading at $150. If she exercises the option and sells the stock at a $100 gain, she pays approximately $40 of tax and has $60 to reinvest in MutualFund. As Table 3 shows, this switch does not pay even if she expects a 14\% return on MutualFund (taxable at the 20\% capital gain rates) and only a 12\% return on EmployerCo stock (taxable at the 40\% ordinary income rate). Exercising the option reduces her investment in two ways: first, by the deferred tax; second, by the exercise price.\footnote{106}

\footnote{103}(...continued)
(.8*.6RI, or .48RI).

\footnote{104}This prediction is consistent with empirical evidence. Professors Ofek and Yermack have noted that executives tend to exercise fewer options than they would if guided solely by a desire to diversify. Specifically, when they receive new grants (and thus new exposure to firm-specific risk), executives do not exercise as many vested options (and thus do not sell as many shares) as needed to cancel out this new exposure. See Ofek & Yermack, supra note 7. This reluctance may derive, in part, from the tax lock-in described above.

\footnote{105}Motivations to exercise the option will resemble motivations to hedge it. For discussions of the latter, see supra Part I.D.

\footnote{106}The ability to “invest” the exercise price before parting with it gives the option “time value.” See supra Part I.A; see also Heath, supra note 7, at 603 (“premature exercise sacrifices substantial value -- on the order of 25\% of the option’s expected value”). An offsetting consideration is that exercise allows the (continued...)
TABLE 3: NQO LOCK-IN AND DIVERSIFICATION

<table>
<thead>
<tr>
<th>Investment</th>
<th>Amount Invested</th>
<th>Pre-tax Return</th>
<th>Pre-tax Amount Earned</th>
<th>Tax Rate</th>
<th>Tax</th>
<th>After-tax Amount Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mutual Fund</td>
<td>60</td>
<td>14%</td>
<td>8.40</td>
<td>20%</td>
<td>1.68</td>
<td>6.72</td>
</tr>
<tr>
<td>Option: Exercise Price Ignored¹</td>
<td>100</td>
<td>12%</td>
<td>12.00</td>
<td>40%</td>
<td>4.80</td>
<td>7.20</td>
</tr>
<tr>
<td>Option: Exercise Price Included ²</td>
<td>150</td>
<td>12%</td>
<td>18</td>
<td>40%</td>
<td>7.20</td>
<td>10.80</td>
</tr>
</tbody>
</table>

To generalize with variables, assume the stock is trading at $S$ and the option’s exercise price is $E$. The difference between these amounts, $I$, is the option’s intrinsic value (i.e., the profit that would be earned by exercising the option). In other words, $I + E = S$. Assume that $R$ and $N$ are the (positive) returns expected on the option and MutualFund, respectively.

By exercising the option and selling the stock, the executive can extract the option’s intrinsic value, $I$. After taxes, she can reinvest $.6I$ in MutualFund. Her after-tax return will be $.8N \times .6I$ or $.48NI$. What if instead she keeps the option? We focus first on the effects of tax deferral while ignoring the ability to invest the exercise price. The executive can invest the full $I$ and her after-tax return will be $.6RI$. Comparing the two, we see that it will pay to keep the option as long as:

$.6RI > .48NI$

¹ executive to share in dividends, but dividend yields are at historic lows. Cf. Ronald J. Gilson & Bernard S. Black, (Some of) the Essentials of Finance and Investment 238 (1993) (making common assumption, in discussing option valuation, that option holder receives all cash flows generated by underlying).

² This computation isolates the effect of the tax law by assuming the executive is investing the $40 of deferred tax, but not the exercise price.

³ This computation adds in the effect of investing the exercise price, a benefit that derives from the economics of options rather than the tax law.
As a result, the executive should not exercise the option early if she intends to keep the stock. Assuming she funds her tax on the option by reducing the size of her position, which usually is the case, the executive would lose 40% of her position (or more if we factor in her ability to invest the exercise price). The increase in her rate of return from .6R to .8R is too small to make up the shortfall.

\[ .6R > .48N \]
\[ R > .8N \]

The tax effect thus discourages exercise if the option’s expected return is at least 4/5 as great as the return on the new investment.\(^{109}\)

Once we factor in the exercise price, the effect is more dramatic. The executive will invest \( I + E \) and her after-tax return will be:

\[ .6R(I + E) \]

It thus pays to keep the option\(^{110}\) as long as:

\[ .6R(I + E) > .6 \times .8 NI \]
\[ R(I + E) > .8NI. \]

Even if the option’s expected return is less than 4/5 of the return on the new investment, the return on the exercise price (\( RE \)) can make up the shortfall.

b. Financing Consumption

By increasing the option’s return, tax-deferral increases the opportunity cost of exercising it to finance consumption. For example, exercising the above option would yield $60 after tax. But the opportunity cost is to forgo the 12% interest charge.

\(^{109}\)As a result, the executive should not exercise the option early if she intends to keep the stock. Assuming she funds her tax on the option by reducing the size of her position, which usually is the case, the executive would lose 40% of her position (or more if we factor in her ability to invest the exercise price). The increase in her rate of return from .6R to .8R is too small to make up the shortfall. Instead of earning .6RI from the option, she will earn only .8*.6RI, or .48RI. See Raasch & Rowland, supra note 28, at 33; see also Zurack, supra note 71, at 4. To avoid reducing her position’s size, the executive could borrow to fund the tax and exercise price, but the interest charge would reduce her return. In any event, the executive can earn the same return — capital gain offset by an interest charge — without exercising the option; she can simply borrow to buy additional stock.

\(^{110}\)To see how dramatic this effect is, assume that the exercise price is $100, the stock is at $300, the expected return on the option is 10%, and the expected return on the new investment is 30%. Even tripling the return does not justify a switch: .10(300) > .8(.30)(100), or 30 > 24.
return (or 7.2% after-taxes),\textsuperscript{111} not just on the $60 to be consumed, but also on the deferred tax ($40) and the exercise price ($50). The opportunity cost rises from $4.32 to $10.80.\textsuperscript{112}

\begin{itemize}
\item[c. Preventing Loss on Option]
\end{itemize}

When the executive expects depreciation on her option and appreciation on an alternative investment, lock-in is weakest, though still a factor.\textsuperscript{113} By exercising the option, the executive loses the ability to invest other people’s money (i.e., the government’s deferred tax and the employer’s exercise price) at no interest\textsuperscript{114} and no obligation to pay it back if she loses it. Admittedly, this “nonrecourse loan” must be invested in the option, which is expected to depreciate. If this decline is uncertain or temporary, though, the “loan” may be hard to give up.

\textit{3. Accidental Origin of Tax Barrier to Exercise}

The tax rules for NQOs are an imperfect measure of income. Because receiving an option is comparable, economically, to receiving cash and investing it in an option, it arguably would be more accurate for the option’s fair market value to be ordinary income when the executive receives it and for subsequent gains to be capital.\textsuperscript{115} Correspondingly, the firm would deduct the option’s fair market

\begin{itemize}
\item[\textsuperscript{111}] \( .6 \times 12 = 7.2 \)
\item[\textsuperscript{112}] In general terms, the opportunity cost of consuming the after-tax proceeds on her option is not just \( .6R \times .6I \), or .36RI. Rather, it is \( .6RI + E \). In the above example, 12\% of 60 is 7.20, or 4.32 after a 40\% tax. Yet the return is earned not just on 60, but on 150 (i.e., 60 + 40 + 50). 12\% of 150 is 18, or 10.80 after a 40\% tax. Note that these numbers represent the future value, rather than the present value. The disparity would be comparable, though, if we discounted the numbers.
\item[\textsuperscript{113}] If she expects both to decline, switching is unappealing because losses would become capital instead of ordinary. See supra note 104.
\item[\textsuperscript{114}] For the tax deferral, she never will pay interest. For the exercise price, she prepaid this “interest” through the option premium (i.e., the cash salary forgone for the option). See Gilson & Black, supra note 107, at 239-40 (value of option includes time value of keeping exercise price until maturity).
\item[\textsuperscript{115}] See Melton, supra note 90, at 492 (option grant is “functionally equivalent to receiving cash compensation and then purchasing the option”). A difference is that the executive may have to forfeit the option (e.g., upon leaving the firm), something that would seldom be true of cash. Yet instead of addressing this forfeiture risk with deferral, as current law does, the tax law could factor this
\end{itemize}
value upon delivering it, and would treat subsequent changes in value as tax-free capital transactions.\textsuperscript{116}

By diverging from this model, the tax law serves corporate governance quite elegantly. If the executive were taxed upon receiving the option, regardless of whether she exercised or sold it, she would have no tax incentive to keep the option.\textsuperscript{117} Instead, the executive owes tax only if she sells or exercises the option, a step the corporation will not want her to take but one the executive may find tempting. The tax law helps contain this impulse.\textsuperscript{118} Nor is this tax rule costly to the treasury. The reduced tax burden on the executive (from deferral of the tax) is matched by an increased tax burden on the firm (from deferral of the deduction). A special tax is thus imposed on the benefitting party. If the firm and executive have roughly equal tax rates, as often is the case, the treasury comes out basically even.\textsuperscript{119}

\begin{quote}
\textsuperscript{115}(...continued) risk into valuation when the option is granted; then, subsequent appreciation deriving from lapse of forfeiture restrictions (as opposed to increases in the stock price) could be taxed as ordinary income. Alternatively, the option could be valued at grant without regard to forfeiture risk; subsequent lapse of restrictions could be ignored and forfeiture could trigger an ordinary deduction. For a discussion, see Melton, supra, at 495-97.

\textsuperscript{116}Cf. Section 1032 (corporations have no gain or loss from transactions in their own stock or options). Appreciation deriving from lapse of restrictions, though, might be treated as deductible compensation.

\textsuperscript{117}If immediate sales are barred by contract, though, the executive can become locked in once the option has appreciated (assuming the appreciation is taxed under the realization rule). Cf. Schizer, supra note 102, at 1610 (describing lock-in under realization rule).

\textsuperscript{118}I do not mean to suggest, though, that the tax law is uniquely able to achieve this function. Contract can do so as well (e.g., through slow vesting or awards that grow with the executive’s holding period). For a discussion of the relative merits of a tax-based solution, see infra Part V.

\textsuperscript{119}The revenue effects of delaying exercise depend on whether the stock price rises or falls after exercise. Thereafter, the issuer no longer can claim a deduction for appreciation. See section 1032 (corporations have no gain or loss on transactions in their stock and options). But the holder of the stock (e.g., the executive or her transferee) would typically owe a 20% capital gains tax, leaving the government with 20% of the appreciation. In contrast, if the stock declines after exercise, the issuer will not have taxable income and the holder will have a 20% capital loss.

\end{quote}
Yet none of this was intended. In taxing NQOs, the Supreme Court, Congress and the Treasury have grappled with valuation rather than corporate governance. The concern is that grant-date valuations can prove self-serving (e.g., so the firm’s deduction could exceed the employee’s income from the same NQO). Thus, Commissioner v. LoBue rejects this approach, advocated by Justice Harlan in dissent, without mentioning corporate governance. Rather, as Professor Chirelstein has observed, the debate between majority and dissent “appears to have turned on a question of fact, namely, whether the options granted to LoBue did, or didn’t, have an ascertainable market value at the date of grant.” As he notes, this valuation concern persists under section 83, LoBue’s statutory heir. Yet, sometimes rules crafted to address administrability concerns, such as valuation, can yield unintended benefits. I have construed the realization rule in these terms. The tax disincentive to exercising options should also be viewed in this light – in effect, as a corporate governance windfall. As we shall see, so too should the tax constraints on hedging.

IV. TAX BARRIERS TO HEDGING

We have seen that the tax rules for NQOs serve a corporate governance function by discouraging executives from exercising options. Yet discouraging exercise is only part of the battle. The other exit strategy, hedging, must be at least as tax-expensive as exercise. That said, the consequences do not have to be

120See 383–2nd, Tax Management Portfolio, Income Taxation of Nonstatutory Stock Options, at II.A.2.d (citing valuation and whipsaw concerns as rationale for not taxing option when granted). Valuation with a Black Scholes model is difficult because the option’s term is uncertain (e.g., the option may terminate if the executive leaves the firm).

121351 U.S. 243 (1956). Interestingly, the tax court offered the option’s incentive effect as a reason not to tax it. See Commissioner v. LoBue, 22 T.C. 440 (1994); see also Commissioner v. Lo Bue, 223 F.2d 367 (2d Cir. 1955) (upholding tax court on the same theory). Yet tax court was not trying to promote better corporate governance, but to measure income more accurately. It was inappropriate to treat the option as income, the tax court said, since the option was given for the employer’s convenience. The Supreme Court properly rejected this theory by observing that the option was not a gift, and thus had to be income.


123Id. For the path from LoBue to the current regulations under section 83, see Tax Management Portfolio, supra note 121, at II.A.2.d.

124See Schizer, supra note 102, at 1549 (defending realization as an effective way to reduce tax burden on investments).
Sections A through C describe three adverse tax consequences that can be triggered by options hedging: accelerated taxable gain on the option; potentially indefinite deferral of loss on the hedge; and a tax without a corresponding pretax profit, arising because a higher tax rate applies to (ordinary) option gains than to offsetting hedging (capital) losses. Section D discusses planning strategies to avoid these results; although some nearly succeed, none does under current law. In contrast, Section E describes stock hedging, which generally does not trigger punitive tax consequences. Finally, Section F returns to options hedging to describe the limited scope, the accidental origins, and the potential fragility of the tax barrier to this practice.

A. Forgoing Deferral of Gain: Constructive Sale Rules

Of the tax risks from options hedging, loss of deferral is the least daunting. The executive can defer her tax by ensuring that the hedge is not treated as a sale under case law\(^\text{125}\) or as a so-called “constructive sale,” a statutory concept introduced in 1997 to impose tax on certain hedging transactions.\(^\text{126}\) There is an unreality to this inquiry, in a sense, since the hedge’s very purpose is to simulate a sale. Even so, “sales” and “constructive sales” are technical concepts, and a hedge can be crafted not to qualify as either. Executives can avoid a sale by keeping legal title to the option and the right to dispose of it.\(^\text{127}\) To avoid a constructive sale, the executive should transfer only some -- and, in the language of the legislative history, not “substantially all” -- of the option’s economic return.\(^\text{128}\) As I

\(^{125}\) Under section 83, selling the option would trigger a tax, just as exercising it would. See section 83(a).

\(^{126}\) See Section 1259. For a discussion, see David M. Schizer, Hedging Under Section 1259, Tax Notes, July 22, 1999, at 345.

\(^{127}\) See Edward Kleinbard, Risky and Riskless Positions in Securities, Taxes 783 (Dec. 1993) (properly crafted hedge of publicly traded assets not treated as sale); see also Joint Committee, General Explanation of Tax Legislation Enacted in 1997 (“Under prior law [before constructive sale rule was enacted], transactions designed to reduce or eliminate risk of loss on financial assets generally did not cause realization.”).

\(^{128}\) S. Rep. No. 105-33, 105th Cong. 1st Sess, at 126. Without retaining any exposure to an NQO’s return, executives still have a technical argument. Arguably, an asset can be the subject of a constructive sale only if a sale would yield “gain,” as opposed to income. See section 1259(a)(1) (“If there is a constructive sale of an appreciated financial position . . . the taxpayer shall (continued...)
have written elsewhere, this standard leaves ample room for hedging.\textsuperscript{129} How much economic exposure must the executive keep? Guidance from the Treasury is expected, since the statute does not offer a quantitative test. As a rule of thumb,\textsuperscript{130} the New York State Bar Association (“NYSBA”) suggests a band of exposure equal to at least 20% of the asset’s value.\textsuperscript{131}

\textbf{B. Tax Without Profit: Potentially Indefinite Deferral of Tax Losses}

Options hedging can be deterred not only by accelerating tax on gains, but also by deferring deduction of losses. The point of a hedge, after all, is to cancel out changes in the option’s value. If the option depreciates by $100,000, the hedge must supply an offsetting $100,000 of income; likewise, if the option appreciates by $100,000, the hedge will yield an offsetting $100,000 loss. What if, in the latter case, the executive cannot deduct this $100,000 loss? She will have $100,000 of additional taxable income, and a $39,600 extra tax liability, with no pre-tax gains to pay it. As we shall see, this loss deferral, and the tax without profit it causes, can occur if the option appreciates after the hedge but not if it depreciates. Two separate regimes can trigger loss deferral: the capital loss limitations and straddle rules.

\textit{1. Character Mismatch}

\textsuperscript{128}(...continued)

recognize gain as if such position were sold . . . ”). NQOs yield only the latter. See supra note 103.

\textsuperscript{129}See Schizer, supra note 38, at 345 (tax-free hedging can continue under section 1259).

\textsuperscript{130}The NYSBA’s proposed safe harbor has two other requirements as well: first, the band of exposure must include the current stock price; second, the hedge must not last more than five years. A problem with this “gross spread” approach is its indifference to volatility. Keeping a 20% band is more meaningful for a nonvolatile utility than for a volatile Internet stock, as the latter is more likely to trade outside that range. To account for volatility, the NYSBA recommends use of options pricing to value retained exposure as a proportion of total exposure. For a discussion, see Schizer, supra note 127, at 351. In the interests of full disclosure, I was an author of the report offering these recommendations, but they represent the organization’s views.

\textsuperscript{131}For example, assume an executive holds options to purchase 10,000 shares for $10 per share and the stock is now trading at $100. If the executive buys a put with an exercise price of $100 and sells a call with an exercise price of $102, thus leaving herself only a $2 band of exposure, she will have a constructive sale. On the other hand, under the NYSBA’s guideline, she avoids this result if her short call’s exercise price is $120.
If the option appreciates after the executive hedges, option gains will be ordinary and corresponding hedging losses generally will be capital.�\(^{132}\) Because capital losses cannot offset the tax on ordinary income,\(^ {133}\) the losses will be deferred unless the executive has capital gains from other investments. For example, assume an executive has options to buy 10,000 shares at $10, and the stock is trading at $100. She enters into a collar that leaves her exposed to price fluctuations between $90 and $110.\(^ {134}\) Thus, her pretax profit is guaranteed to be at least $800,000 and could be as much as $1 million. Yet as the table below shows, taxpayers who cannot use their capital losses find this pretax gain eroded -- indeed, it can turn into a loss -- as the underlying stock appreciates.\(^ {135}\)

\(^{132}\)Compare Section 83(a) (ordinary character for compensatory option gains) with Section 1234A (losses on derivatives generally capital). See also Steinberg, supra note 59, at 221-26 (losses are capital on options, forwards, and collars). For a discussion of swaps and contingent debt, which generate ordinary losses, see infra Part IV.D.1 & 2.

\(^{133}\)See section 1211. For individuals, the modest sum of $3000 of capital loss can offset ordinary income each year. Section 1211’s purpose is to prevent taxpayers from currently deducting losses while deferring inclusion of gains. See Robert H. Scarborough, Risk, Diversification and the Design of Loss Limitations Under a Realization-Based Income Tax, 48 Tax L. Rev. 677 (1993). This tax reduction strategy exploits the so-called “timing option” implicit in the realization rule. For a discussion, see George M. Constantinides, Capital Market Equilibrium with Personal Tax, 51 Econometrica 611, 621-23 (1983) (discussing timing option). See also Schizer, supra note 102, at 1557-60 (same).

\(^{134}\)The collar protects her from risk of loss by allowing her to sell for $90, but limits her opportunity for gain by obligating her to sell for $110.

\(^{135}\)If the stock price rises to $200, she nets a $1 million pre-tax profit. In addition, she has an extra $900,000 of ordinary income on the option and a corresponding $900,000 capital loss on the hedge. Yet she cannot use this loss to avoid tax on the ordinary income. Assuming she does not have capital gains from another investment, her tax bill rises by $356,400 (i.e., 39.6 * 900,000), making her total current tax bill ($752,400) more than 75% of her economic profit. As Table 4 shows, moreover, if the price goes to $300, her $1.14 million current tax bill will exceed her $1 million economic profit.
Thus, as Professor Knoll has observed, hedging an ordinary asset with a capital asset is like writing the government a free call option. See Michael S. Knoll, Hedging in an Economy with Asymmetric Taxes: A Comment on Moshe Ayre Milevsky & Eliezer Z. Prisman, U.S.C. Law School Working Paper Series No. 98-16.

See section 1014 (basis in property acquired from a decedent generally is fair market value on date of death); see generally, Lawrence Zelenak, Taxing Gains at Death, 46 Vand. L. Rev. 361 (1993) (describing advantages to taxpayer of basis “step-up” at death).

<table>
<thead>
<tr>
<th>Stock Price at Maturity</th>
<th>200</th>
<th>300</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock Price at Time of Hedge</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Economic Gain</td>
<td>1 million</td>
<td>1 million</td>
</tr>
<tr>
<td>Taxable Income from Option</td>
<td>1.9 million</td>
<td>2.9 million</td>
</tr>
<tr>
<td>Deferred Capital Loss from Hedge</td>
<td>900,000</td>
<td>1.9 million</td>
</tr>
<tr>
<td>Current Tax Bill</td>
<td>752,400</td>
<td>1,148,400</td>
</tr>
<tr>
<td>After-tax Cash</td>
<td>247,600</td>
<td>(148,000)</td>
</tr>
</tbody>
</table>

Because capital loss on the hedge is potentially unlimited, since it grows with the employer’s stock price, not all executives will be sure, ex ante, of having enough gains to use all their losses. The executive thus bears a risk without any offsetting reward, because having capital gains allows her, at most, to break even. Even executives who expect to have gain, moreover, could be forced to recognize it prematurely. If the executive would otherwise keep her appreciated capital asset for years after her hedge matures — indeed, until she dies, so that her tax would be forgiven — hedging loss would shelter gain that, in effect, does not need sheltering.

2. Straddle Rules

The straddle rules of Section 1092 could defer losses indefinitely, although the taxpayer has a plausible argument to avoid this result, reinforced by a June 1999 IRS ruling. The straddle regime was not aimed at a corporate governance problem, but at a 1970's tax shelter that “gamed” the realization rule. Taxpayers

Thus, as Professor Knoll has observed, hedging an ordinary asset with a capital asset is like writing the government a free call option. See Michael S. Knoll, Hedging in an Economy with Asymmetric Taxes: A Comment on Moshe Ayre Milevsky & Eliezer Z. Prisman, U.S.C. Law School Working Paper Series No. 98-16.

See section 1014 (basis in property acquired from a decedent generally is fair market value on date of death); see generally, Lawrence Zelenak, Taxing Gains at Death, 46 Vand. L. Rev. 361 (1993) (describing advantages to taxpayer of basis “step-up” at death).
would enter into offsetting positions (e.g., a contract to buy and sell gold at the same price) and would claim a current deduction for the unprofitable one while deferring tax on the profitable one. In response, the straddle rules prevent taxpayers who have straddles (i.e., two offsetting positions) from deducting a loss before recognizing gain in offsetting positions. Because the hedge and option generally would be a straddle, the executive could not deduct hedging losses before exercising the option.

Yet losses could be deferred indefinitely under the loss-suspension rule for “unbalanced” straddles, i.e., hedges of less than all the taxpayer’s positions. Under literal application of Section 1092(a), a taxpayer who hedges only one of her three shares may not deduct hedging losses before recognizing gain on all

---

138 See Keyes, supra note 3, at 17-3 (describing abuse that prompted enactment of section 1092). The taxpayer thus is exploiting the timing option discussed supra note 134.

139 Section 1092(a)(1). The straddle rules also prevent a taxpayer from attaining the long-term capital gains holding period in her long, see Treas. Reg. 1.1092(b)-2T, and disallow interest incurred to purchase or carry a straddle. See Section 263(g). These effects are discussed below.

140 A straddle is defined as “offsetting positions,” see Section 1092(c)(1), which in turn means that one position “substantially diminish[es] risk of loss” in the other. See Section 1092(c)(2). As a technical matter, the hedge arguably does not reduce risk of “loss” in the option because “loss” is defined as a capital loss, see Treas. Reg.1.1092(b)-5T (defining “loss” with reference to section 165), and options generate ordinary rather than capital loss. Even so, the executive does have risk of capital loss on the hedge, see supra note 133, which is diminished by holding the option. Moreover, the definition of loss as capital loss purports to apply only to certain regulatory provisions (i.e., Treas. Reg. 1.1092(b)-1T through 4T). Since the straddle definition is not among them, “loss” arguably is defined in a nontechnical way for that purpose.

Some basket hedges may not give rise to straddles, though. Although the option “substantially diminishes” risk of loss in a basket hedge that disproportionately represents the employer’s stock, it may not do so for baskets that tracks the industry or market as a whole. See Steinberg, supra note 59, at 243 n. 111 (single stock hedged with put based on broad based index could not be straddle).

141 The executive might counter that losses are deferred only if she has “unrealized gain,” see Section 1092(a)(1)(A), and options generate “income” rather than “gain.” Yet such a technical reading of “gain,” though plausible, is arguably inappropriate. Whereas regulations define “loss” as a capital loss, see supra note 141, they do not offer an equivalent definition of gain.
three shares. 

Although Congress authorized regulatory relief for this harsh result almost two decades ago, the Treasury has not yet provided it. Arguably, then, an executive cannot deduct hedging losses before retiring. Until then, she will constantly receive new options and thus will always have appreciated longs. To deflect this indefinite loss deferral, executives might argue that Treasury’s eighteen-year delay entitles them to treat the statutorily-mandated regulatory relief as self-executing. A recent IRS letter ruling supports this view, although such rulings are of limited precedential value.

142 Under section 1092(a)(1)(A), “Any loss with respect to one or more positions shall be taken into account for any taxable year only to the extent that the amount of such loss exceeds the unrecognized gain (if any) with respect to one or more positions which were offsetting positions with respect to 1 or more positions from which the loss arose.” As long as the two unhedged shares have “unrecognized gain,” selling the hedged share arguably does not release the loss. See Steinberg, supra note 59, at 246 (absent relief from the Treasury, “most practitioners believe that the result [for unbalanced hedges] is that none of the loss is currently deductible”).

143 See Section 1092(c)(2)(B) (“If 1 or more positions offset only a portion of 1 or more other positions, the Secretary shall by regulations prescribe the method for determining the portion of such other positions which is to be taken into account for purposes of this section.”). See Priv. Let. Rul. 199925044 (1999) (noting that such regulations have not been issued).

144 Although deductions are usually viewed as a privilege rather than a right, see New Colonial Ice Co. v. Helvering, 292 U.S. 435 (1934) (deductions are a “matter of legislative grace”), several authorities treat regulatory relief as self-executing when the statute mandates it (e.g. by using the phrase “the Secretary shall,” as in Section 1092(c)(2)(B)) and the Treasury delays for an extended period. See, e.g., First Chicago Corp. v. Commissioner, 842 F.2d 180 (7th Cir. 1988) (in enacting minimum tax, Congress ordered Secretary to propose a tax benefit rule; since Treasury had not “gotten around to” this task, court allowed taxpayer to use tax benefit rule; note, though, that government conceded that tax benefit rule was self-executing); see also, e.g., Occidental Petroleum Corp. v. Commissioner, 82 T.C. 819 (1984) (“[T]he failure to promulgate the required regulations can hardly render the new provisions of section 58(h) inoperative.”). United States v. Deckelbaum, 784 F. Supp. 1206, 1207 n.3 (D. Md. 1992); Estate of Maddox v. Commissioner, 93 T.C. 228 (1989) (with respect to Section 2032A(g), which authorizes favorable estate tax valuation for certain family farms, “[t]he Secretary cannot deprive a taxpayer of rights which Congress plainly intended to confer simply by failing to promulgate the required regulations”).

145 See Priv. Let. Rul. 199925044 (1999) (allowing taxpayer who was collaring less than all her stock to identify which stock was a straddle with her (continued...)}
C. Tax Without Profit: Asymmetric Rates

Even an executive who expects to have ample capital gains and is willing to be aggressive about straddle loss deferral is not out of the woods. An options hedge still cannot leave her indifferent, after taxes, to subsequent changes in the stock price. To do so, the hedge must produce a dollar of after-tax gain for every dollar of after-tax loss on the option. In addition, it must produce a dollar of after-tax loss for every dollar of after-tax gain on the option. Yet, the hedge cannot satisfy both of these conditions because different tax rates govern hedging losses and gains. Since the option and hedge are a straddle, gain on the hedge is always short-term capital gain, generating a 39.6 cent tax for every dollar of hedging gain.\textsuperscript{146} In contrast, capital loss on the hedge will typically reduce long-term capital gain, thereby reducing the tax bill by only 20 cents for every dollar of hedging loss.\textsuperscript{147} These asymmetric rates force the executive to pick one of three unappealing outcomes: a net after-tax loss as the stock rises; a net loss as it falls; or a smaller net loss in both cases.\textsuperscript{148}

1. Protection from Declines / Tax Cost from Increases

The cost of breaking even as the stock price falls is after-tax loss as the stock price rises. For example, assume an executive has 10,000 options to buy a share at $10. After the stock has appreciated to $100, she enters into a “collar” on all 10,000 options, which leaves her exposed to price fluctuations between $90 and $110.

\textsuperscript{145}(...continued)
collar, but noting that the ruling “may not be used or cited as precedent”).

\textsuperscript{146}A straddle leg cannot satisfy the long-term capital gains holding period as long as it is part of a straddle, regardless of how long the taxpayer holds it. See 1.1092(b)-2T (holding period does not begin as long as property is part of a straddle). Short-term capital gains rates are the same as those for ordinary income. Cf. William A. Klein & Joseph Bankman, Federal Income Taxation 834 (11th Ed. 1997) (after netting, only long-term capital gain is subject to preferential rate).

\textsuperscript{147}The executive would avoid this problem if her losses were reducing other short-term capital gains in her portfolio, since her losses then would reduce her tax by 39.6 cents, instead of 20 cents. Yet an executive will rarely expect to have sufficient short-term capital gains in the year her hedge matures, let alone short-term gains that she would not otherwise have aged to long term.

\textsuperscript{148}Nor does the executive’s counterparty have correspondingly favorable treatment (such as ordinary losses and long-term capital gains). Cf. Bradford, supra note 104, at 731 (1995) (tax base is protected as long as favorable tax treatment to one party is offset by unfavorable treatment to counterparty). The counterparty would keep her usual treatment; if a dealer in securities, it would have ordinary income or loss under mark-to-market accounting. See section 475.
This page contains information on how hedging can be used to reduce tax liabilities. Specifically, it discusses how an executive can use a collar (a combination of a put and a call option) to offset the tax on gains or losses on an underlying stock, while also reducing the tax on ordinary income. The text includes tables that illustrate the benefits of using a collar, showing how the tax on gains or losses can be reduced by offsetting them with tax deductions on capital gains. The tables are labeled as Table 5 and Table 6, and they provide data on how the tax savings vary with changes in the stock price.

Footnotes are used to provide additional context and references. For example, Footnote 149 explains that the executive makes a profit on the collar as the stock price declines because the collar allows her to sell the stock for $90. For example, if the stock is worth $60, the right to sell it for $90 is worth $30. Footnote 150 explains that a perfect offset is possible because the same tax rate applies to ordinary income on the option and to short-term capital gains on the hedge. See supra note 147. For every dollar that the stock price falls below $90, the executive loses a dollar of ordinary income per option (and 60.4 cents after taxes) and replaces it with a dollar of short-term capital gain on her collar (and thus 60.4 cents after taxes).

Footnote 151 explains that as the stock price declines below $90, every after-tax dollar of option loss will be offset by an after-tax dollar of profit on her collar. Footnote 152 explains that every dollar the price rises above $110, the executive loses 19.6 cents after-taxes. The reason is that a dollar of pre-tax profit on the option is ordinary income that generates a 39.6 cent tax; yet a corresponding dollar of capital loss on her collar reduces the tax bill by only 20 cents.

Table 5: Breaking Even as Stock Price Falls

<table>
<thead>
<tr>
<th>Stock Price at Maturity</th>
<th>Option Pre-tax Profit</th>
<th>Option After-tax Profit</th>
<th>Collar Pre-tax Profit</th>
<th>Collar After-tax Profit</th>
<th>Net Profit on Both Positions</th>
</tr>
</thead>
<tbody>
<tr>
<td>90</td>
<td>800,000</td>
<td>483,200</td>
<td>0</td>
<td>0</td>
<td>483,200</td>
</tr>
<tr>
<td>60</td>
<td>500,000</td>
<td>302,000</td>
<td>300,000</td>
<td>181,200</td>
<td>483,200</td>
</tr>
<tr>
<td>10</td>
<td>0</td>
<td>0</td>
<td>800,000</td>
<td>483,200</td>
<td>483,200</td>
</tr>
</tbody>
</table>

Table 6: 19.6% Hedging Tax as Stock Rises

<table>
<thead>
<tr>
<th>Maturity Stock Price</th>
<th>Option Pre-tax Profit</th>
<th>Option After-tax Profit</th>
<th>Collar Pre-tax Loss</th>
<th>Collar After-tax Loss</th>
<th>Net After-tax Profit</th>
<th>Compare Profit at 110</th>
</tr>
</thead>
</table>

149 She makes a profit on the collar as the price declines because the collar allows her to sell the stock for $90. For example, if the stock is worth $60, the right to sell it for $90 is worth $30.

150 A perfect offset is possible because the same tax rate applies to ordinary income on the option and to short-term capital gains on the hedge. See supra note 147. For every dollar that the stock price falls below $90, the executive loses a dollar of ordinary income per option (and 60.4 cents after taxes) and replaces it with a dollar of short-term capital gain on her collar (and thus 60.4 cents after taxes).

151 As indicated above, this calculation assumes the loss is reducing long-term, rather than short-term, capital gains. See supra note 148.

152 Another measure of hedging cost is the financial instrument an executive must buy to break even as the stock price rises. She would need an additional 1,960 call options to earn an extra 19.6 cents after taxes for every dollar of increase in the stock price above $110. (This calculation assumes she could use existing capital losses to shelter tax on these new calls).
This number is computed as follows.

Let $X =$ the number of hedged options

Let $Y =$ the number of unhedged options

Since they both sum to 10,000, $X + Y = 10,000$

Since the after-tax return on the unhedged ones must offset the 19.6% cost on the hedged ones,

$.604Y = .196X$

$3.08Y = X$

$4.08Y = 10,000$

$Y = 2450$

$X = 1000 - Y = 7550$

---

2. Exposure to Declines / No Net Cost from Increases

To avoid after-tax losses as the stock price rises, the executive can hedge less than all of her position: 7550 options, instead of the full 10,000.\(^{153}\) Whereas the hedge will still generate a tax cost as the stock price rises, appreciation in the 2,450 unhedged options offsets this cost. The price of breaking even, though, is that 2,450 options remain unhedged. As Table 7 shows, they will generate after-tax loss as the stock price falls.

### TABLE 7: INCOMPLETE PROTECTION FROM DECLINES

<table>
<thead>
<tr>
<th></th>
<th>1,000,000</th>
<th>604,000</th>
<th>0</th>
<th>0</th>
<th>604,000</th>
<th>n/a</th>
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</thead>
<tbody>
<tr>
<td>110</td>
<td>1,010,000</td>
<td>610,040</td>
<td>(10,000)</td>
<td>(8,000)</td>
<td>602,040</td>
<td>(1,960)</td>
</tr>
<tr>
<td>210</td>
<td>2 million</td>
<td>1,208,000</td>
<td>(1 million)</td>
<td>(800,000)</td>
<td>408,000</td>
<td>(196,000)</td>
</tr>
<tr>
<td>410</td>
<td>4 million</td>
<td>2,416,000</td>
<td>(3 million)</td>
<td>(2.4 million)</td>
<td>16,000</td>
<td>(588,000)</td>
</tr>
</tbody>
</table>

\(^{153}\) This number is computed as follows.

Let $X =$ the number of hedged options

Let $Y =$ the number of unhedged options

Since they both sum to 10,000, $X + Y = 10,000$

Since the after-tax return on the unhedged ones must offset the 19.6% cost on the hedged ones,

$.604Y = .196X$

$3.08Y = X$

$4.08Y = 10,000$

$Y = 2450$

$X = 1000 - Y = 7550$
To break even as the price falls, the executive must buy puts that generates 14.8 cents after taxes for every dollar of declines below 90. Assuming this gain is taxable short-term capital gain (since her other positions do not generate capital loss to shelter it), she will need 2,450 puts (i.e., 24.5 * 60.4 = 14.8).

Yet although the executive is incompletely protected as the price declines, Table 8 shows that she now breaks even as the price rises.\(^{154}\)

**TABLE 8: BREAKING EVEN AS PRICE RISES**

<table>
<thead>
<tr>
<th>Stock Price at Maturity</th>
<th>Option Pre-tax Profit</th>
<th>Option After-tax Profit</th>
<th>Collar Pre-tax Loss (on 7550 options)</th>
<th>Collar After-tax Loss (on 7550 options)</th>
<th>Net After-tax Profit</th>
</tr>
</thead>
<tbody>
<tr>
<td>110</td>
<td>1,000,000</td>
<td>604,000</td>
<td>0</td>
<td>0</td>
<td>604,000</td>
</tr>
<tr>
<td>111</td>
<td>1,010,000</td>
<td>610,040</td>
<td>(7550)</td>
<td>(6040)</td>
<td>604,000</td>
</tr>
<tr>
<td>210</td>
<td>2,000,000</td>
<td>1,208,000</td>
<td>(755,000)</td>
<td>(604,000)</td>
<td>604,000</td>
</tr>
<tr>
<td>410</td>
<td>4,000,000</td>
<td>2,416,000</td>
<td>(2.265 million)</td>
<td>(1.812 million)</td>
<td>604,000</td>
</tr>
</tbody>
</table>

3. **Partial Exposure to Declines and Increases**

Instead of having losses either as the price declines or as it rises, the executive can spread her losses over both scenarios. For example, she can leave 1,225 options unhedged, instead of 2,450. As a result, she halves her losses as the price falls below 90, at the cost of 9.8 cents for every dollar of increase above 110.

\(^{154}\)To break even as the price falls, the executive must buy puts that generates 14.8 cents after taxes for every dollar of declines below 90. Assuming this gain is taxable short-term capital gain (since her other positions do not generate capital loss to shelter it), she will need 2,450 puts (i.e., 24.5 * 60.4 = 14.8).
TABLE 8: LOSSES FROM DECLINES

<table>
<thead>
<tr>
<th>Maturity Stock Price</th>
<th>Option Pre-tax Profit</th>
<th>Option After-tax Profit</th>
<th>Collar Pre-tax Profit (on 8775 Options)</th>
<th>Collar After-tax Profit</th>
<th>Net Profit on Both Positions</th>
<th>Compare Profit at 90</th>
</tr>
</thead>
<tbody>
<tr>
<td>90</td>
<td>800,000</td>
<td>483,200</td>
<td>0</td>
<td>0</td>
<td>483,200</td>
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<tr>
<td>60</td>
<td>500,000</td>
<td>302,000</td>
<td>263,250</td>
<td>159,003</td>
<td>461,003</td>
<td>(22,197)</td>
</tr>
<tr>
<td>10</td>
<td>0</td>
<td>0</td>
<td>702,000</td>
<td>424,008</td>
<td>424,008</td>
<td>(59,192)</td>
</tr>
</tbody>
</table>

TABLE 9: LOSSES FROM INCREASES

<table>
<thead>
<tr>
<th>Maturity Stock Price</th>
<th>Option Pre-tax Profit</th>
<th>Option After-tax Profit</th>
<th>Collar Pre-tax Loss on 8775 Options</th>
<th>Collar After-tax Loss</th>
<th>Net After-tax Profit</th>
<th>Compare Profit at 110</th>
</tr>
</thead>
<tbody>
<tr>
<td>110</td>
<td>1,000,000</td>
<td>604,000</td>
<td>0</td>
<td>0</td>
<td>604,000</td>
<td>n/a</td>
</tr>
<tr>
<td>111</td>
<td>1,010,000</td>
<td>610,040</td>
<td>(8,775)</td>
<td>(7,020)</td>
<td>603,020</td>
<td>(980)</td>
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<tr>
<td>210</td>
<td>2 million</td>
<td>1,208 million</td>
<td>(877,500)</td>
<td>(702,000)</td>
<td>506,000</td>
<td>(98,000)</td>
</tr>
<tr>
<td>410</td>
<td>4 million</td>
<td>2,416 million</td>
<td>(2.6325 million)</td>
<td>(2.106 million)</td>
<td>310,000</td>
<td>(294,000)</td>
</tr>
</tbody>
</table>

**D. Planning Around Tax-Without-Profit Effects: Seeking Ordinary Treatment on the Hedge**

We have seen that the constructive sale rules and straddle loss deferral can arguably be avoided. Yet the character mismatch and asymmetric tax rates are more daunting. As we see in this Section, some planning opportunities almost counteract them but, to my knowledge, none succeeds under current law. The objective of each of these strategies is for the return on the hedge to be ordinary, instead of capital. As a result, there no longer would be a mismatch with the option’s ordinary return; likewise, differences between the short and long-term capital gains rates would become irrelevant, as would the straddle rules’ effect on
holding period. With the following six strategies, the hedge’s return would be ordinary but other tax costs render the strategy unusable under current law.\footnote{An alternative way of avoiding the character mismatch is -- not to make the hedge’s character ordinary -- but to make the incentive compensation’s character capital. There are only two instances when this occurs. The first, a so-called “section 83(b) election,” is not available for options. It is considered in Part IV.D.2’s discussion of stock hedging.}

A cautionary note is in order, though. The tax law is constantly changing, and tax lawyers are a creative group. As Professor Ginsburg has observed, “The tax bar is a repository of the greatest ingenuity in America and, give them the opportunity, they will do you in.”\footnote{The tax law is constantly changing, and tax lawyers are a creative group. As Professor Ginsburg has observed, “The tax bar is a repository of the greatest ingenuity in America and, give them the opportunity, they will do you in.”} Today’s tax barrier may be gone tomorrow.

1. **Swaps**

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\footnote{An alternative way of avoiding the character mismatch is -- not to make the hedge’s character ordinary -- but to make the incentive compensation’s character capital. There are only two instances when this occurs. The first, a so-called “section 83(b) election,” is not available for options. It is considered in Part IV.D.2’s discussion of stock hedging.}

The second type of incentive compensation that is capital is an incentive stock option. See supra Part III.A.1 (discussing tax treatment of ISO’s). However, hedging an ISO turns it into an NQO. For the option to qualify as an ISO, the executive must hold it, and the stock acquired from exercising it, for a requisite holding period without making a “disposition.” See Section 422(a)(1) (to satisfy holding period, taxpayer must not make “disposition” until requisite time has elapsed). In rulings, the government has construed “disposition” broadly to include hedging. See, e.g., Rev. Rul. 73-92, 1973-1 C.B. 208 (treating an executive as making a disqualifying disposition by shorting stock while holding identical stock acquired through a qualified option). Hedging would also eliminate the holding period under the straddle rules. See Treas. Reg. 1.1092(b)-2T (holding period does not begin as long as position is part of straddle). See also Part IV.B.2 (discussing straddle rules). The executive cannot avoid these results by holding the ISO for a minimum period before hedging; she still will not have satisfied the holding period for the stock.

Although the tax character of swap payments is not settled, ordinary treatment is likely for certain swaps. Yet hedging with swaps bears two severe tax costs, each following from the fact that swap expenses are “miscellaneous itemized deductions.” First, these losses are not deductible unless, together with the executive’s other miscellaneous itemized deductions, they exceed 2% of her adjusted gross income for the year. More importantly, ordinary swap losses offer no deduction under the AMT. An executive with sizable options income, offset by corresponding swap expenses, computes her AMT based only on the income. As a result, she will owe a 28% tax on these amounts even when she has no economic profit.

157 A swap is a two party contract that binds each party to make periodic payments based on an objective financial indicator, such as interest rates or stock prices. For a description, see G-30 Report, supra note 4, at 8.

158 Ordinary treatment is more likely if the swap uses annual payments, instead of a single payment at maturity, to account for gains and losses in the underlying property. See Prv. Ltr. Rul. 9730007 (ordinary treatment for swaps that settle gains and losses with periodic payments); see also New York State Bar Association (Tax Section) Report on Notional Principal Contract Character and Timing Issues, reprinted in Tax Notes Today, May 22, 1998, at 15 [hereinafter “NYSBA Swap Report”] (IRS ruling treating swap payments as ordinary may not apply to swap using single payment at maturity). Yet use of annual payments has two disadvantages. First, the executive may face a liquidity crunch. If the stock price rises, she will owe a swap payment but may not have cash to pay it (since she probably is not yet ready to exercise her option). In addition, the executive may lose the advantages of tax deferral. If the stock price falls, the payment she receives is immediately taxable.

159 These are a special class of disfavored itemized deductions, which are not excluded from “miscellaneous” status by Section 67(b). The deduction under Treas. Reg. 1.446-3 for swaps is usually considered an expense for the production of income under section 212. Such expenses are not excluded by section 67(b).

160 See Steinberg, supra note 59, at 230 (swap expense subject to 2% limitation). For example, if her a.g.i. is $250,000 and she makes a $50,000 payment, she loses $5,000 of the deduction.

161 See id; Section 56(b)(1) (disallowing deduction of miscellaneous itemized deductions in computation of alternative minimum taxable income). For a discussion of the AMT, see supra note 94.

162 See section 55(b)(1)(A)(is)(II) (tentative tax for noncorporate taxpayers is 28% of so much as exceeds $175,000). Some of the executive’s hedge expense will come due before she exercises the option (since the swap will require annual (continued...
Yet this tax barrier largely depends on the AMT, which has come under fire in recent months. Critics observe that the tax, which originally targeted wealthy taxpayers, can now apply to large middle class families, merely because they have many dependents.\textsuperscript{163} Not surprisingly, then, the House Republicans have proposed to scale back and, ultimately, to repeal the AMT. The proposal, offered by Chairman Archer of the Ways and Means Committee, would impose only 80\% of AMT liability in 2003, 70\% in 2004, 60\% in 2005, 50\% in 2006 and 2007, and would repeal the AMT entirely for tax years after 2007.\textsuperscript{164} If this measure survives the vagaries of the budget process, hedging will no longer trigger a significant tax without economic profit, at least after 2007.\textsuperscript{165}

\textsuperscript{162}(...continued) payments based on appreciation in the option). These swap deductions are likely to reduce her taxable income enough to trigger the AMT. Thus, she could owe AMT during every year that she hedges, and not just in the year she exercises her option.


\textsuperscript{165}Before then, declines in the AMT rate could ease the tax cost, but probably not enough to make hedging palatable. Even 50\% of the AMT is a significant tax to pay when the executive has no economic profit.
2. Contingent Debt

The executive can generate ordinary hedging losses by embedding her hedge in a debt instrument. 166 She can borrow money and agree for her interest obligation to increase with the employer’s stock price. 167 Yet although interest on contingent debt usually gives rise to an ordinary deduction, 168 the so-called investment interest rules severely limit the deduction. Far from targeting corporate governance, this limitation aims at “tax arbitrage” in which taxpayers borrow money (and deduct interest) to buy assets that yield a tax-exempt or a tax-deferred return. 169 In response, Congress allows a deduction of “investment interest” only up to the amount of a taxpayer’s “investment income” (e.g., taxable interest and dividends). 170 On the equity-linked debt described above, then, the executive cannot deduct interest (including payments based on appreciation in the underlying

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166 Professor Knoll has observed this advantage of contingent debt as a hedge for business risks. See Knoll, supra note 137, at 2.

167 For example, assume the employer’s stock is trading at $100 and the executive has options to buy 10,000 shares at $10, which have $900,000 of intrinsic value. She can buy a put which allows her to sell the stock for $90, so that she locks in $800,000 of gain. To pay for this put, instead of selling a call (at, say, $110), she can borrow money and structure her interest payments so that they are, in effect, a short call. Thus she borrows $900,000 and, when the loan matures, she must return this principal amount plus, as interest, the amount by which the value of 10,000 shares exceeds $1.1 million. If the stock is trading at $210 at maturity, she will owe $1 million of interest; but if the stock is trading at $90, she will not owe any. Note that the put must be separate from the debt. If it is embedded in the debt by allowing the principal amount to decline with the stock price, the instrument may not qualify as debt for tax purposes — and thus will not generate ordinary expense — since it does not require repayment of a minimum amount.

168 Under the “noncontingent bond method” of Treas. Reg. 1.1275-4, this interest is deductible, subject to the limitation described in text. The deduction is not delayed until the executive makes the payment. Instead, she takes an annual deduction based on her usual borrowing cost (the “comparable yield”). When the debt instrument matures, she adjusts her income in that year (i.e., with inclusions or additional deductions) to rectify any divergence between prior deductions and her actual payment.

169 See Chirelstein, supra note 123, at 139 (explaining investment interest rules as response to tax arbitrage).

170 See Section 163(d)(1) (investment interest may not be deducted to the extent it exceeds net investment income). Disallowed deductions may be carried forward to subsequent tax years. See Section 164(d)(2).
Salary income is not included in the two statutory classes of “investment income”: “gross income from property held for investment” and “net gain attributable to the disposition of property.” See Section 163(d)(4).

Specifically, the argument applies to the so-called “positive adjustment,” which is an additional deduction for the amount by which the payment at maturity exceeds the tax law’s prediction, as of the issue date, of what this payment would be. See Treas. Reg. 1.1275-4(b)(6) (discussing positive and negative adjustments). This predicted amount (the so-called “projected payment schedule”), which is based on the issuer’s usual borrowing cost, has already been deducted (i.e., through the issuer’s annual deduction for the “comparable yield”). See note 169, supra (discussing use of comparable yield in noncontingent bond method).

Treas. Reg. 1.1275-4(b)(9)(vi) (“[A]n issuer treats a positive adjustment as a loss with respect to a position in a straddle if the debt instrument is a position in a straddle . . . .”)

Executives have a plausible argument to avoid this limitation, at least for deductions claimed when the bond matures, but the “solution” creates a new problem. The contingent debt rules treat expense at maturity (i.e., the so-called positive adjustment) as a “loss,” at least for purposes of the straddle rules, if the debt is part of a straddle. Does this regulation render the payment a “loss,” as opposed to “interest,” for other purposes as well? If it does — and, in my view, this reading is plausible, though not clearly correct — the positive adjustment is no longer “interest” subject to the investment interest limits. However, as a “loss,” it

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172 Specifically, the argument applies to the so-called “positive adjustment,” which is an additional deduction for the amount by which the payment at maturity exceeds the tax law’s prediction, as of the issue date, of what this payment would be. See Treas. Reg. 1.1275-4(b)(6) (discussing positive and negative adjustments). This predicted amount (the so-called “projected payment schedule”), which is based on the issuer’s usual borrowing cost, has already been deducted (i.e., through the issuer’s annual deduction for the “comparable yield”). See note 169, supra (discussing use of comparable yield in noncontingent bond method).

173 Treas. Reg. 1.1275-4(b)(9)(vi) (“[A]n issuer treats a positive adjustment as a loss with respect to a position in a straddle if the debt instrument is a position in a straddle . . . .”)
should be a miscellaneous itemized deduction\textsuperscript{174} that, as discussed above, is not deductible under the AMT.\textsuperscript{175}

3. Mark to Market Election for Securities Traders

If the executive can qualify as a “securities trader” under section 475(f), she can elect ordinary treatment for all her securities including her hedge.\textsuperscript{176} Yet even if she is eligible for the election,\textsuperscript{177} the strategy is too costly. All her other

\textsuperscript{174}Not all “losses” are miscellaneous itemized deductions. Indeed, losses from “sale or exchange of property” are accorded favorable “above the line” status (i.e., they are used to compute adjusted gross income). See Section 62(a)(3) (granting deduction for losses from sale or exchange of property). Yet the loss here is from terminating an obligation, not from selling property. Whereas section 1234A treats certain terminations as if they were a sale or exchange of property, this provision explicitly excludes retirement of debt. See section 1234A (“The preceding sentence shall not apply to the retirement of any debt instrument”). Assuming the loss is not interest, no deduction would be available under section 163. See section 163 (authorizing deduction for interest). The statutory basis for a deduction, then, is likely to be as an expense for production of income under section 212. Yet such expenses clearly are miscellaneous itemized deductions. See Treas. Reg. 1.67-1T(a)(1)(ii) (noting that expenses under section 212 are miscellaneous itemized deductions).

\textsuperscript{175}See Part IV.D.1 (noting that executives cannot hedge with swaps because swap expense is a miscellaneous itemized deduction that is nondeductible under the AMT). Whereas deductions at maturity could thus be blocked by the AMT, the “comparable yield” deduction which the executive might claim prior to maturity is potentially limited by the straddle rules. If this interest is incurred to “carry” a straddle, the deduction is disallowed; this interest is added to the basis of a leg of the straddle. See Section 263(g)(1) (requiring capitalization of “interest and carrying charges properly allocable to personal property which is part of a straddle”). If added to the NQO’s basis, the interest expense reduces ordinary income, thereby averting any character mismatch. If added to the basis of the put, however, the expense generates capital loss and thus a mismatch.

\textsuperscript{176}See Treas. Reg. 1.475(f)–2(b).

\textsuperscript{177}To be eligible, the executive must have an active business of trading securities in which she constantly places short-term bets. See Liang v. Commissioner, 23 T.C. 1040 (1955) (traditional mark of a “trader” is that “securities are bought and sold with reasonable frequency in an endeavor to catch the swings in the daily market movements and profit thereby on a short-term basis”); see also Daniel S. Shapiro, Private Securities Partnerships – The Trade or Business Issue Reexamined, 56 Tax Notes 56 (July 6, 1992) (describing (continued...
requirements in case law for having a trade or business as a securities trader). This showing is difficult for someone who has a full-time occupation unrelated to such trading.

178 See Treas. Reg. 1.475(f)-2(a)(4) (securities not identified as investment securities are marked to market and ordinary income treatment).

179 Since she would want mark to market treatment for her hedge (in order to get ordinary character), the executive would have to settle for mark to market treatment for the option. See 1.475(f)-2 (securities that are substantially similar generally must be marked to market if at least one has been treated a “trading” security).

180 The partnership, as opposed to the partners, elects the partnership’s method of accounting, but the choice “shall not apply to any partner’s nonpartnership interests.” See 1.703-1(b). Thus, a Section 475(f) election, if successful, gives the executive mark-to-market and ordinary treatment on any positions in the partnership (i.e., the hedge) but not on any of the positions outside the partnership.

181 See Section 475(f) (offering election to “a person who is engaged in a trade or business as a trader in securities”).

182 To seem more like a trader, the partnership might supplement the hedge with other positions, but this defeats the purpose of using the partnership (i.e., avoiding mark to market accounting for other positions).

183 The passive loss rules keep taxpayers from reducing their wage income with “passive losses,” i.e. losses from activities in which they do not “materially

(continued...)
4. Physically-Settled Derivative

The character mismatch and asymmetric rates arise because the hedge generates losses that, after taxes, may not fully offset option gains. These effects do not arise, though, if the hedge — instead of generating a corresponding loss — simply caps the executive’s taxable income from the option. For tax purposes, physically-settled derivatives are treated as fixing a sale price, and thus capping the amount realized on the underlying property. For example, assume a taxpayer has an option to buy 10,000 shares for $10. When the underlying stock is at $100, such that the NQO has $900,000 of intrinsic value, the executive might enter into a contract to sell the compensatory option itself (a “physically-settled forward contract”) for $900,000 in three years. Upon delivering the option, the executive has $900,000 of taxable option income, even if the option is worth considerably more. To use this approach, however, the executive must actually deliver her NQOs, a legal impossibility because they are not transferable.

5. Hedging Rules

183(...continued)

184 See Part IV.B & C, supra.

185 See, e.g., Steinberg, supra note 59, at 222 (when put option is physically settled, no gain or loss is recognized on the put; gain or loss is recognized on underlying property, based on put exercise price instead of underlying’s fair market value); cf. id. at 248 n. 125 (noting that taxpayers can use physically-settled derivatives to avoid “converting” long-term gain to short-term gain on straddle).

186 Although I use $900,000 in text for the sake of simplicity, the price should be higher because forward prices generally equal the spot price plus an amount based on time value.

187 See Part II.A, supra.
The hedging regulations of Treas. Reg. 1.1221-2 alleviate character mismatches in other contexts, such as hedging of inventory.\textsuperscript{188} If applicable, the regulations allow ordinary treatment for hedging losses that otherwise would be capital.\textsuperscript{189} Yet regulatory relief is unlikely here. It is available only for “hedging transactions,” defined as “a transaction that a taxpayer enters into in the normal course of the taxpayer’s trade or business primarily . . . to reduce risk of price changes or currency fluctuations with respect to ordinary property . . . that is held or to be held by the taxpayer.”\textsuperscript{190} Even if the executive is hedging “price changes,” a phrase that seems more applicable to inventory or raw materials than to equity compensation,\textsuperscript{191} she is not hedging “in the normal course of [her] trade or business.” \textit{Whipple v. Commissioner}\textsuperscript{192} concludes that “full time service to one corporation does not alone amount to a trade or business.” Nor is the hedging itself “in the normal course.” It obviously is not a work responsibility, since it is not even in the employer’s interest.

\textit{6. Hedge Provided by Employer}

If the employer supplies the hedge as compensation, the hedge yields an ordinary return\textsuperscript{193} and thus does not trigger loss deferral or asymmetric tax rates.

\textsuperscript{188}For a discussion of the problem that inspired the regulations, see Edward D. Kleinbard & Suzanne Greenberg, Business Hedging After Arkansas Best, 43 Tax L. Rev. 393 (1988).

\textsuperscript{189}See Treas. Reg. 1.1221-2(a).

\textsuperscript{190}Treas. Reg. 1.1221–2(b)(1).

\textsuperscript{191}Nor is it clear that the option is “ordinary property.” Although it yields ordinary income, See 1.1221-2(c)(5)(i) (“[P]roperty is ordinary property to a taxpayer only if a sale or exchange of the property by the taxpayer could not produce capital gain or loss . . . .”), an NQO that has no readily ascertainable fair market value arguably is not “property” for tax purposes until it is exercised. For this argument, see infra note [83(b) election].

\textsuperscript{192}373 U.S. 193 (1963). \textit{Whipple} might be distinguished as applicable “[w]hen the only return is that of an investor,” since Mr. Whipple was a major investor in the firm. In contrast, the typical executive’s primary relation to the firm is as an employee, not as an investor.

\textsuperscript{193}See Section 83(a) (providing ordinary character for property received as salary). The firm might be reluctant to provide loss protection explicitly (e.g., through a put) because doing so could render the compensation nondeductible. See supra note 100. Yet the firm could avoid this issue by offering “performance” pay based on an easily attainable target (such as a low level of accounting (continued...))
Yet such a hedge does not raise the same concerns as third-party hedges. As a party to the negotiation, the firm can monitor and protect its interests and also will disclose the hedge to shareholders.

**E. Hedging Stock**

The tax penalties on options hedging generally still apply if an executive hedges a grant of stock received as compensation (so-called restricted stock). These penalties apply with much less force, however, if an executive seeks to hedge stock purchased stock with her own funds, whether in exercising an option, in a market purchase or, say, in founding the firm.

1. *Stock Purchased with Executive’s Own Funds*

Assume an executive purchased a share of stock for $1 of her own funds. Once the stock has appreciated to $100, she decides to hedge it. Of the tax penalties on options hedging discussed above, the only one that applies with the same force to here is the constructive sale rule and, as indicated above, that rule is easily avoided. For instance, the executive could enter into a “collar” in which she retained risk of loss from $100 to $90 and opportunity for gain from $100 to $115.

In this circumstance, the capital loss limitation has no application because, unlike the return on an NQO, the return on stock is capital. Because gains on the stock have the same character as losses on the hedge, the two offset each other for tax purposes.\(^{194}\)

In addition, the straddle rules could apply to stock hedging. Yet unlike options hedging, stock hedging offers a way to avoid the two adverse consequences of this regime, discussed above: indefinite deferral of hedging.

\(^{193}\) (…continued)

earnings).

\(^{194}\) For instance, if the stock rose to $215, the executive would have $115 of capital gain to absorb the $100 capital loss on the cash-settled collar.
losses\textsuperscript{195} and the asymmetric rate effect.\textsuperscript{196} Specifically, a physically settled hedge (i.e., in which the hedged asset is actually delivered in satisfaction of the hedge) avoids these problems.\textsuperscript{197} Whereas this structure cannot be used for options (i.e., because contractual restrictions prevent it from being transferred), no such constraint operates on stock (i.e., since it usually can be delivered).

As a result, the tax barriers for stock hedging are fairly modest, as long as the stock was purchased with the executive’s own funds. Since stock hedging presents somewhat less serious governance issues than options hedging, as discussed above, this differential is not necessarily troubling. To the extent

\textsuperscript{195}To see this effect, assume the executive had two shares of stock, each bought for $1, and hedged only one of them (i.e., with a $90-$115 collar). If the stock rose to $215 and the executive settled the collar by paying $100 to her counterparty – that is, through cash settlement – she arguably could not use this capital loss until she sold both shares of stock. For a discussion of this issue, see supra Part IV.B.2.

\textsuperscript{196}To see this effect, assume the executive had only one share of stock, purchased for $1, and hedged it with a $90-$115 collar. If the stock declined to $20, she could receive a cash payment of $70 upon cash-settling the collar. This capital gain is \textit{short-term} – regardless of how long she has held the collar or stock – because the collar and stock are a straddle. This gain in effect replaces a corresponding $70 decline in the built-in capital gain on the stock (since it declined from $90 to $20). If the executive held the stock for more than a year before hedging it, this built-in capital gain would have been \textit{long term} if she had sold the stock instead of hedging it. As a result, if the collar is cash settled, long-term capital gain on the stock is replaced with less-desirable short-term gain on the collar.

\textsuperscript{197}For a discussion of why physically-settled derivatives avoid loss deferral and asymmetric tax rates, see Part IV.D.4. In general, unlike a cash-settled derivative, which the tax system treats as having tax consequences separate from the hedged asset – that is, separate losses (potentially subject to deferral) or separate gains (potentially rendered short-term) – physically-settled derivatives do not have tax consequences separate from those on the hedged asset. Instead, the physically-settled derivative merely set the amount of gain on the hedged asset.

In the examples in the preceding footnotes, then, if the stock rises to $215 and the executive physically-settles the derivative, she is treated as selling the stock at $115, and thus has a gain of $114 (i.e., $115 minus $1) – instead of a gain of $214 and a separate $100 loss on the collar, as she would have if the collar were cash-settled. Likewise, if the stock falls to $20 and she physically-settles the collar, she is treated as selling the stock at $90, and thus has a gain of $89 (i.e., $90 minus $1) – instead of a gain of $19 on the stock and a (short-term) gain of $70 on the collar, as she would have if the collar were cash-settled.
shareholders want to restrict stock hedging, however, they cannot rely on the tax law for this function.\footnote{198}

2. Restricted Stock Grants

Although the tax constraints on stock hedging usually are modest, they are severe – indeed, almost as severe as on options hedging – if the executive received the stock as salary, instead of purchasing it with her own funds. Such stock hedging resembles options hedging for two reasons. First, like the return on an unexercised NQO (and unlike the return on stock generally), the return on a restricted stock grant is ordinary income.\footnote{199} As a result, if an executive hedges the stock before it vests, stock appreciation would be ordinary but hedging losses would be capital, thereby implicating the capital loss limitations. Second, as with an option (and unlike with stock generally), there may be limitations preventing transfer or sale of the restricted stock; thus, the hedge may have to be cash-settled, and so the straddle rules could trigger loss deferral and asymmetric rates, as discussed above.\footnote{200}

A way around these constraints -- though not a cost-free one-- is available for restricted stock, but not options. Through a so-called section 83(b) election, executives can choose to treat the value of certain property, received as compensation, as ordinary income when they receive it. Any subsequent

\footnote{198}For instance, a problem arguably arises when boards ease the requirements for exercise, apparently to encourage executives to own more stock. In so-called “reload” options, the firm gives executives new at-the-money options when they exercise in order to restore some of the time value lost upon exercise. See Gay, supra note 65, at R6 (describing reload options); see also Steven Huddart, et al., Valuing the Reload Features of Executive Stock Options, NBER Working Paper 7020 (1999) (describing reload options and methods of valuing them). Some of these options also have “tax reload” features in which new options replace stock that is sold to pay taxes. Id. at R7 (describing tax reload feature). In effect, the firm deliberately undoes the lock-in described above. See Part III, supra. A problem with such options, not widely recognized, is that they replace hard-to-hedge options with easy-to-hedge stock.

\footnote{200}On the other hand, if relevant contracts permit the executive to sell the restricted stock after it vests, the executive might structure a physically-settled hedge with a term longer than the vesting period. Then, adverse tax consequences could largely be avoided, including the capital loss limitations (since the hedge would serve to cap the sale price, instead of generating separate losses that could be subject to deferral). Whereas the constructive sale rule would still apply, the taxpayer could avoid it through, for example, a physically-settled collar.
appreciation is treated as capital gain\textsuperscript{201} and so hedging the property does not trigger a character mismatch. Because the election is available for stock but not for a typical NQO,\textsuperscript{202} stock grants are easier to hedge than NQOs.\textsuperscript{203} Even when available, though, the section 83(b) election comes at a cost. Not only must the executive forgo deferral (i.e., by including the property’s value in income in the year she receives it), but she gets no deduction if she forfeits the stock (e.g., upon leaving her job).\textsuperscript{204}

\textbf{F. Scope, Accidental Origins, and Fragility of Tax Barrier to Hedging}

In three ways, the tax barrier to options hedging is more effective than existing contract and securities law barriers.\textsuperscript{205} First, the tax barrier applies at firms that do not limit hedging by contract. Second, the tax barrier affects \textit{all} U.S. executives, and not just the most senior ones (as do most securities law barriers). Third, the tax barrier applies to basket hedges that evade other barriers.\textsuperscript{206}

Yet Congress did not craft the tax barrier as a corporate governance measure. Instead it arose by accident, from the interaction of several tax

\textsuperscript{201}See Raasch & Rowland, supra note 92, at 40 (describing consequences of Section 83(b) election).

\textsuperscript{202}The reason is that an 83(b) election is available only for “transfers of property.” See Treas. Reg. 1.83-2 (“property [must be] transferred (within the meaning of 1.83-3(a))”). Grant of an option that does not have readily ascertainable value is not considered a “transfer of property.” See Treas. Reg. 1.83-3(a)(2) (noting that “the grant of an option to purchase property does not constitute a transfer of such property” and cross-referencing 1.83-7 for “the extent to which the grant of the option itself is subject to section 83”); See Treas. Reg. 1.83-7(a) (option that does not have readily ascertainable fair market value is not subject to section 83 until it is exercised).

\textsuperscript{203}Another disadvantage of stock grants is that they may reinforce the executive’s reluctance to involve the firm in risky projects. See Part I.C.5.

\textsuperscript{204}See Section 83(b) (“[I]f such property is subsequently forfeited, no deduction shall be allowed in respect of such forfeiture”); see also Treas. Reg. 1.83-2(a) (same). Any deduction that is still permitted, such as upon selling the stock at a loss, is a less desirable capital loss. This prospect is not of concern to someone who is hedging, though. She is content as long as both the hedge and hedged asset generate gains and losses that can offset each other for tax purposes.

\textsuperscript{205}See supra Part II for a discussion of these other barriers.

\textsuperscript{206}Application of the straddle rule barriers (i.e., loss deferral and asymmetric tax rates) to basket hedges is less clear, though. See supra note ?.
objectives: preventing exploitation of the timing option (e.g., the constructive sale rule, straddle rules and capital loss limitations), blocking tax arbitrage (investment interest rules), and shoring up the system as a whole (passive loss rules, AMT). Indeed, no one seems to have intended to tax options hedging more punitively than stock hedging. Like the tax barrier to exercise, the tax barrier to options hedging traces from LoBue. If the dissent had prevailed, options would be taxed as ordinary income when granted. Because the subsequent return would be capital, hedging would not trigger a character mismatch. Yet we can be sure the Court did not anticipate this effect of its decision.

Given these accidental origins, it is not surprising that the tax barrier has a gap, albeit a hard one to exploit. Whereas the tax barrier creates chilling ex ante risks in all cases, some costs (i.e., from the capital loss limitations, straddle rules, and asymmetric tax rates) arise only if the stock price increases after the executive hedges. Even so, risk neutral executives should be deterred because these potential costs as the stock rises are not offset by potential after-tax benefits as the stock price falls. For risk averse executives, moreover, the bad outcome is deterrent enough. Nor can executives usually predict a decline in the stock price with certainty. A rational executive will not drive down the stock price merely to break even on her hedge, since the reputational costs of “success” can be career-ending. In addition, an executive cannot legally use inside information. Although she may have advantages in assessing public information, it is hard to be certain the stock price will fall in absolute terms, since even poor performers drift upward in a rising market.

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207See Part IV.E, supra (noting relative ease of hedging stock).

208To avoid most (but not all) of the tax risks, the executive can pay for a put by giving the counterparty cash, instead of a call option. However, people are rarely willing to buy such protection with cash because it is so expensive. See supra Part I.B.

209Firm trading policies, discussed supra note 70, also impede use of inside information by preventing executives from trading except immediately after periodic disclosure.

210Indeed, an executive’s predictive powers may be fairly unreliable. In a recent survey, Smartmoney.com noted that, over a twenty-four week period in which the Dow Jones Industrial Average rose by 9%, the 92 companies in which insiders had increased their holdings declined by 2.7%; the 227 firms in which insiders reduced their holdings were up 16.8%. “The Clueless Insiders,” Smartmoney.com, February 11, 1999.

211The tax risk also generates two second order effects. By thinning the ranks of executives who would be interested in hedging, it may discourage (continued...)
Whereas the tax barrier is effective for now, at least in the United States, a vulnerability is that, as an accidental barrier, it can be unsettled as inadvertently as it fell into place. For example, the asymmetric-tax-rate effect arises only if different tax rates govern ordinary income and long-term capital gain – something that was not true as recently as 1986, and that may cease to be true in the future (e.g., if the Democrats regain control of Congress while retaining the White House).\(^\text{212}\) Likewise, a June 1999 IRS ruling has made the deferral of straddle losses considerably less formidable.\(^\text{213}\) More fundamentally, executives will be able to hedge with swaps if the AMT is repealed, as Chairman Archer has proposed,\(^\text{214}\) or if swap expenses become deductible under the AMT. The latter change, a more modest one, is also reasonably likely in light of the tax bar’s ongoing debate about the tax rules for swaps.\(^\text{215}\) In more general terms, the political currents that can alter the relevant tax laws – or, for that matter, keep them in place – spring from sources broader than, and, indeed, far removed from, corporate governance. This can be a strength, in that executives cannot capture the process. Yet it is also a weakness. If the tax law changes in response to unrelated pressures and concerns, a likely prospect in my opinion, the tax barrier will be gone. In the coming years, then, other barriers will be needed. As we see in the next Part, the other barriers already in place in the United States are not sufficient.

Even today, moreover, the tax barrier does not affect executives who are not subject to U.S. tax (e.g., because they are not U.S. citizens and their work does not have sufficient nexus to the U.S. economy).\(^\text{216}\) This problem takes on particular urgency because option grants outside the United States are becoming

\(^\text{211}(\ldots\text{continued})\) investment bankers from marketing these products. From the executive’s perspective, moreover, the tax risk creates a signaling cost. If hedging is plausible only for those who expect declines, it becomes all the more embarrassing if detected.

\(^\text{212}\) I have written elsewhere about the instability of the capital gains preference. See Schizer, supra note 102, at 1579-82, 1592-93, 1601-06.

\(^\text{213}\) See supra Part IV.B.2.

\(^\text{214}\) See supra Part IV.D.1.

\(^\text{215}\) See generally NYSBA Swap Report, supra note 159.

\(^\text{216}\) U.S. citizens and resident aliens are subject to tax on their worldwide income, regardless of where it is earned. Treas. Reg. 1.1-1(b); Joel D. Kuntz & Robert J. Peroni, 1 U.S. International Taxation B1-50 (1992). In contrast, foreigners generally are taxed on salary income only if it is “effectively connected” to the United States. Section 871(b). 2 Kuntz & Peroni, supra note 216, at C1--75.
increasingly common. In many cases, foreign firms seek to imitate U.S. compensation practices; without the tax barrier, though, a key piece of the puzzle is missing. While tax and regulatory barriers to hedging in other jurisdictions are beyond this Article’s scope, they should be scrutinized. If they are ineffective, as I suspect they may be, contractual or regulatory responses are urgently needed when this U.S. compensation trend is exported.

V. DESIRABILITY OF A TAX SOLUTION

As discussed in Part I, shareholders have a strong interest in preventing executives from hedging. Likewise, executives should want to signal credibly that they are not hedging in order to earn extra compensation for taking risk. If the tax barrier is repealed, then, both parties will have incentive to limit options hedging another way. In my view, it would be better for contract or the securities laws, instead of the tax law, to bar options hedging. Even so, the tax barrier is a reasonably satisfactory solution in the United States, at least as long as it is not repealed inadvertently.

A. Administrative Costs

Since Professor Surrey’s influential work, the costs of pursuing social policy through tax have been well understood. Yet some of these costs are absent here, for a somewhat atypical reason: the U.S. tax system already monitors and punishes options hedging for reasons unrelated to corporate governance (e.g., backstopping the realization rule, avoiding valuation disputes, etc.). The added administrative cost is modest when society “subcontracts” this corporate governance task to the tax system. Because no new tax rules must be added,

217 See supra note 20.


219 Because this fortuitous condition might not hold in other jurisdictions, this advantage of the U.S. tax barrier might be difficult to replicate elsewhere. See Part VII.C., infra.

220 Cf. Edward A. Zelinsky, Efficiency and Income Taxes: The Rehabilitation of Tax Incentives, 64 Tex. L. Rev. 973 (1986) (“Tax incentives efficiently communicate government policies through an existing information network, that is, the network of professional advice and assistance that exists to comply with the tax law.”) The added administrative cost attributable to the tax barrier to exercise is also modest, since it also already exists for tax-administration reasons. A difference, though, is that this barrier is easier to duplicate without the (continued...)
policing this practice does not add to the Code’s complexity. Nor does it increase compliance costs. Executives must already keep records, file returns, hire tax advisors, etc.\textsuperscript{221} The government, likewise, already is supposed to monitor this compliance.\textsuperscript{222}

Without the tax barrier, firms (or perhaps the SEC) would have to tighten existing contractual and securities law limits on options hedging.\textsuperscript{223} Although

\textsuperscript{220}(...continued)

\textsuperscript{221}Executives are likely to comply because of tax rules that gather information and penalize fraud. For example, the investment bank usually must report to the IRS the payments they make to executives on a hedge. See Section 6041(a). Likewise, employers must report an executive’s salary (including options) to the government and withhold a portion as tax. Id. If the executive violates the law (e.g., by not treating the option and hedge as a straddle), she faces steep financial penalties and even criminal prosecution. Indeed, there is even a specific penalty for failing to comply with disclosure requirements under the straddle rules. See Section 1092(a)(3)(B). Admittedly, though, IRS enforcement activities are reported to have waned in recent months (a symptom, apparently, of the IRS’s waning political standing). See, e.g., David Cay Johnston, Tax Professionals See Pitfalls in New I.R.S., N.Y. Times, July 18, 1999, at 21 (“[I]n the agency’s zeal to be friendly . . . tax enforcement has shriveled.”). Yet the extent of the decline is disputed. See George Guttman, The Interplay of Enforcement and Voluntary Compliance,” 83 Tax Notes Today 1683 (June 21 1999) (“[I]t is unclear whether the decrease in enforcement action is as pronounced as some claim”). In any event, executives probably will still hesitate before violating the tax law, not only because their tax preparers should refuse to sign their return, but also because their high incomes increase their risk of being audited (and, arguably, the reputational cost of being caught).

\textsuperscript{222}Although the theory here is that the U.S. government is merely pursuing its usual revenue raising objectives, without any interest in minimizing agency costs, the two objectives are related. If stock prices rise, the government generally shares in those gains by taxing shareholders; if it falls, the government generally shares in the loss. Likewise, the government loses revenue when executives substitute the nontaxable psychic benefits of shirking or perquisites for taxable NQO gains.

\textsuperscript{223}I’m assuming the tax system continues to impose approximately the same administrative costs, so that the institution-building costs incurred by the executive and firm are not offset. Overall administrative costs of the two systems in
attainable, the goal imposes costs. It is harder than restricting sale or exercise, because hedging does not require the firm’s participation and thus is hard to detect, absent disclosure.\(^{224}\) To require disclosure, the firm (or SEC) must define hedging. This task is not easy, since hedging can take various forms with new ones constantly being developed. Narrow definitions are easy to evade, while broad ones (e.g., which include basket hedges) will be resisted as infringing on an executive’s privacy in making investments unrelated to the firm. Either way, executives will need legal advice about how to comply, in addition to the tax advice they already are procuring. Likewise, firms (and/or the SEC) will have to hire employees to monitor compliance. Especially if enforced by the firm (rather than the SEC), the regime could impose morale costs. Executives may resent disclosing to the board personal information unrelated to the firm, even though they are used to disclosing to the IRS. For boards, it may be easier to have the tax system prevent hedging, instead of taking on the “bad cop” role themselves.

**B. Transition Problems**

Shareholders would not act to limit options hedging more effectively until they realized that hedging otherwise was likely to occur. Similarly, executives would have little incentive to agree to better options hedging restrictions (or to suggest them) until the reputational sanctions for hedging exceeded the benefits. Yet the over the counter derivatives market is a recent creation whose implications for hedging have not been equally evident to everyone. Executives have an informational edge, since investment banks have an incentive to educate them and to keep the education discreet\(^{225}\) -- a goal facilitated by porous disclosure obligations. In this climate of imperfect information, then, a great deal of options hedging might have occurred in the United States, if not for the tax barrier\(^{226}\). Eventually, media coverage might have triggered lemon pricing, as well as better contractual and regulatory responses. Even then, options hedging could have continued during the transition, while the SEC, boards, and executives debated the proper response.

\(^{223}\)(...continued) combination, therefore, would rise.

\(^{224}\)See Easterbrook, supra note 7, at 101 (noting that “derivatives markets facilitate anonymous trading” and that “the enforcement problem [associated with insider trading] is considerably more difficult when the trading occurs in derivatives than when it occurs in the stock market”).

\(^{225}\) Investment bankers could expect fees from the hedge, as well as from work which grateful executives could provide (e.g., securities offerings, etc.).

\(^{226}\) Indeed, it is possible that such hedging is now occurring outside the United States. The practice’s inherent secrecy makes data hard to find.
C. Uniformity vs. Nuance

Contractual solutions are more nuanced than government interventions. For example, the tax barrier penalizes “good” basket hedges along with “bad” ones,227 a consequence that some shareholders and executives might not choose when contracting. Indeed, off-the-rack government interventions may discourage private parties from developing better solutions. More generally, executives are not equally risk averse and do not have uniform preferences, and so a single solution is unlikely to maximize utility in all cases.228

Even so, a uniform ban is less daunting here because substitutes for options hedging remain available. Instead of allowing executives to hedge with third parties, the firm itself can supply a hedge or otherwise adjust the executive’s pay. These steps do not trigger the tax barrier to hedging, and they impose fewer transactions costs and are more transparent than third-party hedging.229

A uniform ban does have an advantage, moreover. Without one, shareholders may find it expensive to “price” the diverse restrictions that could arise.230 Shareholders presumably know that an executive’s incentive is to stop the appearance, but not necessarily the reality, of hedging. They also should know that only careful observers can distinguish “real” and “staged” anti-hedging policies. One must scrutinize details of the firm’s basket-hedging policy, such as

227In defense of the tax barrier, though, its penalty for “bad” ones is more severe than for “good” ones, because only the former would be a straddle – with attendant risk of loss deferral and asymmetric rates. See supra note ?. Yet the capital loss limitations still apply, even to “good” basket hedges.

228Cf. Easterbrook, supra note 7, at 103 (“One-size-fits-all is as bad in the corporate governance market as in the clothing market.”). Relatedly, there are efficiencies (and perhaps appealing distributional effects) when parties to a contract internalize the costs of implementing it. Yet this concern is less compelling here because, as discussed above, the marginal cost to the tax system of penalizing hedging is low.

229See supra Part IV.D.6 (hedge provided by employer does not trigger tax barrier); Part I.C.2 (transparency and transaction cost advantages of renegotiating with firm). As indicated above, use of puts and noncontingent cash payments could render compensation nondeductible; yet the firm could avoid this issue with nominally performance-based cash bonuses or indexed options, albeit at the cost of less favorable accounting. See Part IV.D.6.

the minimum tracking error it requires and the vigor of the board’s enforcement efforts. The game might not be worth the candle, since any single shareholder would not capture all benefits of monitoring. Instead, rationally ignorant shareholders might assume an average level of hedging at all firms; firms and executives would find it difficult, then, to signal credibly that executives were not hedging. This problem is less likely, though, if the hedging ban and enforcement mechanism are uniform. Understanding one regime is cheaper than scouring variations for hidden loopholes.

**D. Institutional Mission: Expertise and Stability**

If the government must intervene (e.g., to head off the vicious cycle described above), the securities laws is a better vehicle than the tax law. Although the tax law has a potential administrative cost advantage, described above, the SEC has the offsetting advantage of greater corporate governance expertise. Indeed, the tax system has a poor track record, at least on corporate governance steps it has taken deliberately. Moreover, the tax barrier has the disadvantage of

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231 Sometimes boards enforce policies only as needed to avoid adverse publicity. For example, at the insistence of institutional investors, many boards require managers to purchase stock with their own funds. Yet the *Wall Street Journal* reports that these programs often are public relations charades. Id. For example, some firms lend executives the purchase price and then forgive the loan. Id. (citing examples of Baxter International Inc. and Eastman Kodak Co.). The guidelines are seldom enforced. “I would fall over backwards,” one compensation consultant said, “if the company fired someone for not meeting guidelines.” Id. (quoting Carol Bowie, director of publications at Executive Compensation Advisory Services, a Virginia compensation consultant).

232 See Eisenberg, supra note 44, at 1523 (describing as a “special case of the market for lemons” the problem when potential investors are unsure whether a firm’s structural rules are unduly favorable to management). To minimize this problem, boards could ban any position whose value varies inversely with the stock price, while retaining the sole right to grant exceptions and pledging to disclose these exceptions. Yet even under this strict approach, shareholders might not trust the board’s monitoring.

233 Jeffrey N. Gordon, The Mandatory Structure of Corporate Law, 89 Colum. L. Rev. 1549, 1566 (1989) (“[W]ith mandatory terms, the investor is on equal footing with the firm, because the investor can spread the cost of understanding charter terms across all firms considered for investment.”).

234 See supra Part II.A. (noting flaws in ISO rules and section 162(m)); see also sources cited in note 13, supra.
applying only to executives who are subject to U.S. tax. Finally, as discussed above, seemingly unrelated changes in the tax law could undo the tax barrier.235

VI. RECOMMENDATIONS

A. Universal Contractual Prohibitions

Given the tax barrier’s overbreadth and instability, as well as its limited effect outside the United States, all firms should have contractual prohibitions. These should govern all executives who receive options, rather than just senior officers (as often is the case among firms that currently have such policies). Firms should restrict hedging at least as much as exercise236 and should punish offenders (e.g., by revoking option grants). A broad definition of hedging is warranted to address abusive basket hedging.237

Disclosure of hedging should be required of all executives who are not subject to U.S. tax and, particularly if the U.S. tax law changes, of U.S. taxpayers as well. Unlike current law, the disclosure obligation should not be limited to the most senior executives, and it should include basket hedges. A question is whether firms should introduce comprehensive monitoring and disclosure efforts for U.S. taxpayers when the tax barrier is still in effect. Some firms may wish to rely exclusively on the monitoring supplied by the tax system, so their contractual prohibitions would be enforced largely through moral suasion. Yet firms with monitoring and disclosure already in effect for other purpose, such as insider trading, may conclude that the incremental cost (e.g., of monitoring basket hedges) is justified.

B. Securities Laws238

235 See supra Part IV.F; Part IV.B.2 (discussing straddle losses); Part IV.D.1 (discussing swaps and AMT)

236 In my view, firms should restrict hedging more severely than exercise. Exercise triggers the firm’s tax deduction, but hedging does not. Moreover, exercise is discouraged by noncontractual constraints that may not apply to hedging, such as loss of time value and reputational sanctions.

237 Firms might distinguish the abusive and nonabusive varieties through tracking error or the extent of the firm’s representation in the basket. Alternatively, some firms may prefer to ban all basket hedging, while offering indexed options to those who want them.

238 Although this discussion refers explicitly to U.S. securities law, corresponding adjustments should be made in other jurisdictions.
Section 16(c) should be expanded to govern basket hedges, or at least abusive ones, with a test based on tracking error or representation. In addition, the SEC should continue to read the rule to bar options hedging, even if it abandons this view for hedges of other derivative positions (such as convertible preferred). The SEC should broaden the rule beyond insiders, so it applies to all executives who hold options.

In addition, disclosure obligations for insiders should apply to basket hedges, including nonabusive ones, so shareholders can make their own judgment about the hedge. Finally, the group of executives who must disclose arguably should be expanded beyond insiders, for example, to include those who have options on more than a minimum number of shares.

C. Tax and Accounting Preferences

In the United States, cash compensation is an expense for accounting purposes but, to the extent it exceeds $1 million, it is not deductible for tax purposes. In contrast, options do not trigger an accounting expense but are tax-deductible. Both the tax and the accounting policy have been justified as a way to encourage firms to use options. To the extent that it ever makes sense to distinguish cash compensation from options, the distinction makes no sense if executives are able, through hedging, to transform the latter into the former. These preferences should either be repealed or confined to firms that have banned hedging.

239 See supra note 85, noting that the SEC has offered section 16(c) relief in certain instances without offering a rationale.

240 See Section 162(m). For a discussion, see infra Part III.A.

241 See supra Part I.C.2.

242 For incentive justifications of section 162(m), see Bank, supra note 7, 12; see also infra Part III.A. In 1995, FASB tried to require financial report of options expense. Yet after a flurry of lobbying and Senate hearings, FASB backed down, settling for the footnote disclosure described above. Foes of disclosure warned about difficulties in valuing the options, but the principal argument was that use would discourage firms from using them.

243 For critiques of the tax incentive, see, e.g., Stabile, supra note 13, at 95; Alexandri, supra note 13. For critiques of the accounting treatment, see Jack T. Ciesielski, Stock Options: Accounting Issues Related to a “Shadow Currency,” Analyst’s Accounting Observer, May 22, 1998, at 1-21; McConnell, supra note 48

244 As noted above, a reason to repeal the accounting preference is that it (continued...)
VII. CONCLUSION

A. Executive Stock Options

In revealing the difficulty of options hedging in the United States, this Article confirms the relevance of debates about the proper structure of options packages. This Article also reveals an advantage, not previously understood, of motivating executives through options instead of stock ownership.\textsuperscript{245} As we have seen, the tax law makes it much more difficult to hedge NQOs than stock.\textsuperscript{246} Indeed, stock ownership may not motivate executives, absent effective disclosure and contractual limits on hedging. For the same reason, recent empirical studies measuring the effect of stock price fluctuations on CEO wealth are more reliable to the extent that they consider NQOs rather than stock holdings.\textsuperscript{247}

B. Derivatives

There is a more general lesson here about derivatives. Institutional detail matters profoundly. Many have observed the derivatives market’s potential to change the tax system, the capital markets, and, indeed, the economy as a whole. I agree with this prediction. Derivatives are already changing our economic lives. Yet in assessing their impact, we must consider the tax and other legal regimes

\textsuperscript{244}(...continued)

does not reach, and thus disfavors, market-adjusted options. The tax barrier to hedging compounds this problem by preventing executives from synthesizing these options (i.e., with genuine basket hedges). All the more reason, in my view, to repeal the accounting preference.

\textsuperscript{245}Others have already observed the superior risk effects of options. See, e.g., Tufano, supra note 56, at 1097; see also Part I.C.5, supra.

\textsuperscript{246}To be precise, the key distinction for tax purposes is whether the property was received as compensation or was purchased with the executive’s own money. Thus, grants of stock as salary are difficult to hedge, whereas stock purchased by the executive (including through exercise of a compensatory option) is not. Rule 16-c(4), in contrast, distinguishes between options and stock – regardless of how they were acquired. Under Rule 16-c(4), the former are harder for insiders to hedge than the latter.

\textsuperscript{247}See, e.g., Brian J. Hall & Jeffrey B. Liebman, Are CEOS Really Paid Like Bureaucrats?, 113 Q. J. Econ. 653 (1998) (concluding that the sensitivity of CEO wealth to fluctuations in stock prices is greater than previously recognized, but not considering effects of hedging). For measures of the stock ownership, the executive’s obligation since 1994 to disclose single stock hedges is helpful but the absence of disclosure on baskets represents a potentially significant gap. See also supra note 78 (commercial services do not report hedging to market).
governing them. Although these regimes are obscure and often highly technical, the careful student can reap rich rewards because the devil (or, in our case, the angel) is in the details.

C. Comparative Corporate Governance

In the United States, effective use of options depends in part on the tax law since, for now, it fills gaps in contractual and securities law barriers. Yet it is improbable that tax laws in other jurisdictions already serve this function, since the U.S. tax barrier arose by accident and accidents will not necessarily recur elsewhere. Without a hedging barrier, though, use of options is not advisable. Once again, we see that governance practices are creatures of law and culture, as well as economics. One jurisdiction’s practices may not be appropriate for others, at least without thoughtful adaptation.

D. Tax Law and Corporate Governance

Scholars have identified numerous instances in which the tax law impedes effective corporate governance or, at least, pursues corporate governance objectives ineffectively. Yet the U.S. tax law’s impact is more balanced than scholars previously have recognized. As this Article shows, by helping tether executives to their stock options, the tax law enhances corporate governance. Perhaps contract or the securities law could limit hedging more durably and flexibly, although the tax law has an administrative cost advantage they do not share. Yet contract and the securities laws are not performing this function now, at least not comprehensively. Thus, the tax law deserves a healthy share of the credit. There may be similar stories yet to be told. In my view, the impact of tax on corporate governance merits further study. It has been under-explored, I

248 Other jurisdictions do face some of the problems that prompted the tax barrier, such as the need to backstop a realization requirement. Yet other tax rules, such as the capital / ordinary distinction and the AMT, are considerably less common.


250 See note 13, supra.

251 As noted in Part I.C.2, the tax law’s contribution is greatest if options provide beneficial incentives, but remains constructive (i.e., by promoting transparency) even if options provide suboptimal incentives.
suspect, because tax experts seldom think about corporate governance, and corporate experts seldom think about tax.

The effect described here, moreover, illustrates the enormous power of the tax law to influence behavior, sometimes for the worse but, in this case, mostly for the better. Since the pathbreaking work of Professor Surrey, scholars have understood the costs of deploying the tax law in this way. Yet in this case, the tax law has proved a plausible way to pursue the relevant policy objective. The key fact here is that the tax law has its own reasons to monitor and penalize particular behavior, and so the added burden on tax administration is modest. It is worth exploring whether this advantage recurs elsewhere.

More generally, we should recognize the profound influence of our tax laws. Their effects ripple throughout the economy, sometimes in ways no one intended and few recognize. We should approach changes in the tax system, especially fundamental one, with humility. Some collateral consequences will be good. Others will not. The only certainty, it seems to me, is that we will not anticipate them all.