The Rise and Fall of Managerial Adaptive Responses to Incentive Pay

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Abstract

A commonly-voiced argument ties the current financial crisis to prevailing executive compensation practices. Huge stock-option packages and annual bonuses, the claim goes, caused managers to concentrate on the short-run and overlook the downside of risk-taking. But why did crisis emerge only recently, even though such incentive pay schemes are hardly a new phenomenon? This paper argues that for a long period of time, from the beginning of the 1990s until the beginning of the twenty-first century, managers employed a variety of adaptive tactics in response to option-based compensation and other risk-inducing pay schemes. These practices enabled executives to enrich themselves with option-based pay without much need for raising corporate risk-taking to extreme levels.

Option-dating games, the ability to manipulate and whitewash financial disclosures, option repricing, and many other common practices had just this effect. While corporations were mounting options and short term bonuses, the adaptive responses dulled the edge of their risk inducing potential. Managers thus could receive hefty options packages and annual bonuses without actually being driven to taking much additional risk. That is to say, one unnoticed effect of these otherwise troubling practices was to repress the risk-taking that incentive compensation would, under different circumstances, have produced.

However, at the beginning of the twenty-first century, a combination of new regulation, stock-exchange listing requirements, and intensified market attention inhibited most of the risk-mitigating practices. An amendment to the federal securities regulation made option backdating almost impossible; the accounting profession underwent a major overhaul, leaving less leeway for management to manipulate favorable disclosures; and stock exchanges’ listing requirements made option repricing unfeasible. This was also the fate of many other practices that enabled managers to conceal substantial portions of non-incentive-based compensation, such as stealth compensation and spinning. This new market reality thus set the stage for what became all but the only way for managers to make a lot of money through their compensation packages: by adding risk. It seems that the market tried to adapt to the new reality by gradually reducing the use of stock options. However, certain industries, primarily the financial industry, are able to increase their risk profile rather rapidly. And with the heightened incentive to add on risk, it is no wonder that the financial industry brought the economy to a boiling point.

† Vice Dean, Tel Aviv University, Faculty of Law. For their helpful comments I wish to thank Avi Bell, Ilan Benshalom, Assaf Hamdani, Ehud Kamar, Gideon Parchomovsky, Ariel Porat, Ken Rosen, Max Shanzenbach, Avi Tabbach, Omri Yadlin, and [to come], as well as the participants in the Columbia Law School – Ono 2010 Conference, the Faculty Seminar at the University of Alabama, and the Toronto-Tel Aviv – Siena 2010 Conference [to come]. I also thank Northwestern University School of Law for the hospitality during my stay as a visiting professor while writing this paper.
I. Introduction

A commonly-voiced argument ties the current financial crisis to prevailing executive compensation practices.\(^1\) Huge stock-option packages and annual bonuses, the claim goes, caused managers to concentrate on the short-run and overlook the downside of risk-taking.\(^2\) But why did crisis emerge only recently, even though such incentive pay schemes are hardly a new phenomenon?\(^3\) This paper argues that for a long period of time, from the beginning of the 1990s until the beginning of the twenty-first century, managers employed a variety of adaptive tactics in response to option-based compensation and other risk-inducing pay schemes. These practices enabled executives to enrich themselves with option-based pay without much need for raising corporate risk-taking to extreme levels. The dark side of incentive pay was thus kept at bay. One by one, however, these practices became unavailable, and risk-taking then erupted.

The adaptive tactics can be classified into two types. The first type was developed by managers to allow them to profit easily from their incentive-based compensation. These practices and schemes included option-dating games, manipulation of financial disclosures, and option repricing. While the current literature explains how these schemes facilitated easy profits for managers, what is less clear is that these methods weakened the risk-taking incentives that options would otherwise have produced. Put differently, these pervasive practices had the non-trivial effect of allowing managers to reap hefty gains from their stock options and annual bonuses with no accompanying need to take greater risk. One illustrative example is option backdating, whereby options were covertly granted "in-the-money" and, as such, led to less risk-taking than could have been anticipated from the outset. As we shall see, similar results followed from the ability to manipulate financial disclosures, perhaps the most pervasive adaptive tactic to incentive compensation.

The second type of adaptive tactic that managers employed was hidden compensation schemes that evaded public scrutiny and outrage. These schemes included

\(^1\) See, e.g., Statement by Treasury Secretary Tim Geithner on Compensation, June 10, 2009, available at http://www.ustreas.gov/press/releases/tg163.htm ("This financial crisis had many significant causes, but executive compensation practices were a contributing factor. Incentives for short-term gains overwhelmed the checks and balances meant to mitigate against the risk of excess leverage.").

\(^2\) See, e.g., Sanjai Bhagat & Roberta Romano, Reforming Executive Compensation: Focusing and Committing to the Long-Term, 26 Yale J. on Reg. 359 (2009) (discussing how the existing executive compensation system creates pervasive incentives to concentrate on the short-run and enhance risk and proposing reform); Lucian A. Bebchuk & Holger Spamann, Regulating Bankers’ Pay, 98:2 Geo. L. J. 247 (2010), available at http://www.georgetownlawjournal.com/issues/pdf/98-2/Bebchuk%20&%20Spamann.PDF (showing that the above phenomenon was especially pronounced in the financial industry where "executives faced asymmetric payoffs, expecting to benefit more from large gains than to lose from large losses of a similar magnitude").

\(^3\) While this paper concentrates on executive stock options, the analysis also applies to a large extent to other types of performance pay, in particular annual bonuses, since all these mechanisms cause executive compensation to be convex in performance. Bonuses are usually granted yearly based on the achievements during the previous year. Since there are no "negative" bonuses in bad years, this type of compensation resembles options in that it mostly involves an upside. Hence, options and bonuses similarly add risk-taking incentives. See, e.g., Scott Patterson & Serena Ng, Deutsche Bank Fallen Trader Left Behind $1.8 Billion Hole, Wall St. J., Feb. 6, 2009, at A1 (describing how a Deutsche Bank trader who received tens of millions of dollars per year during years of profitable trades in financial instruments saddled the bank with $1.8 billion in losses when he left the bank during the 2008 crisis).
hefty pension arrangements and other types of stealth compensation, as well as spinning, certain types of self-dealing transactions, and additional covert benefits. Interestingly, most types of hidden pay tended not to be linked to firm performance. Hence, hiding this type of compensation lowered the actual fraction of incentive-based compensation out of the total pay. To appease market participants and institutional investors favoring incentive compensation, hidden pay practices allowed managers to report an artificially inflated percentage of pay-for-performance. These practices, however, also indirectly led managers to refrain from extreme risk-taking activities. Since hidden compensation is contingent on the manager's stint itself and does not fluctuate much with firm performance, managers did not want to rock the boat and endanger their positions.

In general, while companies were mounting more and more options and annual bonuses, managers bolstered their resistance to these risk-taking incentives through additional adaptive activities. Consequently, the enormous risk potential embedded in these compensation devices remained partially dormant. A series of events at the outset of the twenty-first century, however, particularly from 2002 onwards, exposed many of the adaptive practices, leading both the market and regulators to condemn them. Yet no one raised the argument that these undoubtedly disturbing practices also served to reduce the corporate risk levels that the prevailing remuneration methods would otherwise have produced. Swift regulatory changes, stock listing requirements, and the intensified market attention that followed the exposure of these practices inhibited most of the adaptive practices. An amendment to the securities regulation made option backdating almost impossible; the accounting profession underwent a major overhaul, leaving less leeway for management to manipulate favorable disclosures; and stock exchanges’ listing requirements made option repricing unfeasible. This was also the fate of many other practices that allowed managers to conceal substantial portions of non-incentive-based compensation, such as stealth compensation and spinning.

And when adaptive tactics became unavailable, the genie of incentive compensation and the risk it fosters was released from its bottle almost immediately. Indeed, the new market reality that emerged set the stage for what became almost the only way that managers could make a lot of money through their compensation packages: by adding risk. The process of increasing option-based pay and annual bonuses was a gradual one, peaking at the point at which adaptive tactics became almost instantaneously unavailable to managers. The result was a giant jump, over a short period of time, in the risk-inducing effect of incentive pay. And with such possible highly-excessive risk levels, crisis was only a matter of time. There is some indication that the market tried to

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4 The fact that regulation often has unintended and undesirable effects is hardly surprising. See CASS R. SUNSTEIN, FREE MARKETS AND SOCIAL JUSTICE 223 (1997) ("It is a familiar point that government regulation that is aptly justified in principle may go very wrong in practice.").

5 Infra Part III.A.1.

6 Infra Part III.A.2.

7 Infra Part III.A.3.

8 Infra Part III.B.

9 Many scholars have deemed the regulation that followed the Enron fraud crisis as inefficient and, therefore, unable to prevent any crisis. See, e.g., JONATHAN R. MACEY, CORPORATE GOVERNANCE, PROMISES KEPT, PROMISES BROKEN 89 (2008). My take on this regulation is different in that I show that the regulation (which was somewhat beneficial in countering fraud) actually contributed to the new crisis that stemmed from excessive risk-taking.
adapt to the new reality, and the use of stock-option compensation declined significantly, from the beginning of the twenty-first century until today. However, the change in regulation was perhaps too swift to be overcome solely by such a measure. Certain industries, primarily the financial industry, are able to increase their risk profile rather rapidly. And with the heightened incentive to add on risk, it is no wonder that the financial industry brought the economy to the verge of a meltdown.

The paper proceeds as follows. Part II discusses the advent of executive stock-option compensation and annual bonuses and how such compensation schemes can lead to excessive risk-taking. Part III then describes managerial adaptive responses to the increased use of option-based compensation and other risk-inducing pay schemes. The discussion first presents adaptive tactics that tamper with the mechanisms and rationale of stock options (backdating, manipulative disclosure, and option repricing), followed by an examination of the operation of hidden pay practices. I show how each adaptive tactic influenced the incentive mechanism that options (and annual bonuses) yield, as well as the outcomes of the recent regulation and market developments following 2002 that have diminished the availability of these tactics. Finally, Part V wraps up and considers some of the lessons that can be drawn from the discussion.

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10 See infra Part II.

11 To be sure, I do not argue that the sole reason for the gradual drop in the use of stock options was the adaptation to the phenomenon exposed in this paper. After all, the argument that market and regulatory changes intensified option compensation as a risk-inducing tool has never been discussed in the literature prior to this paper. Other reasons for the decline may be the revelation that option compensation induces financial misrepresentation. See Sharon Hannes, Compensating for Executive Compensation: The Case for Gatekeeper Incentive Pay, 98 CAL. L. REV. (forthcoming 2010) (discussing the relationship between option compensation and financial misrepresentation and the crash of the dot.com bubble). Another common explanation for the decline in the usage of executive stock options is the newly imposed requirement to write down the options value as an expense. See Yi Feng & Yisong S. Tian, Option Expensing and Managerial Equity Incentives, 18 FIN. MARKETS, INSTITUTIONS & INSTRUMENTS 195 (2009), available at http://ssrn.com/abstract=1422166 or doi:10.1111/j.1468-0416.2009.00148.x (“In this paper, we argue that mandatory option expensing removes the gap between the executives’ perceived cost and the ‘true’ economic cost of stock options, leading to a reduction in the use of option incentives. We find evidence consistent with this argument and that firms began to cut back their use of stock options as early as 2002.”).

12 And indeed, there is solid empirical evidence that incentive compensation rapidly induces risk-taking in the financial industry. See, e.g., INC-HAW CHENG, HARRISON G. HONG & JOSE A. SCHEINKMAN, YESTERDAY’S HEROES: COMPENSATION AND CREATIVE RISK-TAKING (July 2010), available at http://ssrn.com/abstract=1636645 (“We investigate the link between compensation and risk-taking among finance firms during the period of 1992-2008… risk-taking measures are correlated with short-term pay such as bonuses and options even controlling for longer term incentives ….”); HALEY BARTON & JUDITH A. LAUX, EXECUTIVE PAY INEFFICIENCIES IN THE FINANCIAL SECTOR (2010), available at http://ssrn.com/abstract=1584730 (“The study examines data on 40 firms in the financial sector and 40 firms in the manufacturing sector to empirically test for a relationship between executive pay and leverage… [C]ompensation is a significant determinant of a firm’s total debt-to-total assets ratio for the financial sector… while the manufacturing sector yielded no significant relationship.”)
Part II: The Promise and Perils of Executive Stock-Option Compensation

Executive compensation is designed to align managers' incentives with those of the shareholders. In the particular case of stock options, this includes incentives to increase the corporation's risk profile. In the absence of such a pay arrangement, there is sound reason to believe that managers will be overly conservative.\(^\text{13}\) Since executives garner high salaries and other benefits from their stints, they may be reluctant to rock the boat and endanger their position at the firm. Shareholders, especially diversified ones, might therefore wish to encourage managers to become more aggressive. This ideology came to dominate the American corporate scene more than twenty years ago and led to an explosion in the usage of stock options as a compensation tool.\(^\text{14}\) At its peak, stock-option compensation represented the lion's share of executive pay packages, comprising alone more than 60% of the value of all executive compensation at the turn of the twenty-first century.\(^\text{15}\) However, option compensation is a double-edged sword, for it can induce excessive risk-taking levels. Shielded with options, managers might prefer a project with an inferior expected return. To illustrate, consider a case in which management faces two alternatives: the first, a non-risky profile that will lead to a certain return of $5 per share, and the second, a risky profile that offers a 50% chance of increasing share prices by $15 dollars and a 50% chance of reducing share prices by $15. The average or expected return of the risky profile is zero, which means that no reasonable shareholder would prefer it over the certain $5 return of its alternative. Managerial option compensation could, however, push in the reverse direction. Since there is no downside to options, the bad scenario under the risky profile will not lead to any loss for the option-holder. Hence, the average return of the risky profile is $7.5 for any owner of an option,\(^\text{16}\) which might be preferred to the $5 safe alternative. Similar consequences can ensue from a compensation method that includes short-term bonuses. Bonuses and options similarly

\(^\text{13}\) Michael C. Jensen & William H. Meckling, Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure, 3 J. Fin. Econ. 305, 353 (1976) ("[T]his seems to capture some of the concern often expressed regarding the fact that managers of large publicly held corporations seem to behave in a risk averse way to the detriment of the equity holder. One solution to this would be to establish incentive compensation systems for the manager or to give him stock options which in effect give him a claim on the upper tail of the outcome distribution. This also seems to be a commonly observed phenomenon."). See also R.A. Haugen & L.W. Senbet, Resolving the Agency Problems of External Capital through Options, 36 J. Fin. 629 (1987) (an early formal model of the various roles that options can play in mitigating agency costs).

\(^\text{14}\) Michael C. Jensen & Kevin J. Murphy, CEO Incentives—It’s Not How Much You Pay, But How, 68 Harv. Bus. Rev. 138 (1990) (advocating equity-based compensation before such a practice was widely employed in the economy); Brian J. Hall & Jeffrey B. Lieberman, Are CEOs Really Paid Like Bureaucrats?, 113 Q.J. Econ. 653, 655 (1998) (reviewing compensation practices of the 400 largest public firms and concluding that executives are no longer paid like bureaucrats and that pay is linked to performance).

\(^\text{15}\) See Walker, supra note 11, at 18 fig. 3.

\(^\text{16}\) I assume that options were granted at the outset and with an exercise price that was equal to the market price of the shares on the day of grant. As we shall see below, in infra Part III.A.1., this is a realistic assumption. Therefore, each option can be exercised in the good state of the world and yield a profit of $15 to its holder. Since the probability of such an event is 50%, the expected return is $7.5. For the sake of simplicity, I also assume that the market does not understand at the time of grant that the options may drive the manager to adopt a risky profile. We shall stick to this assumption in the running example throughout this paper.
create asymmetric payoffs between high payoffs in good scenarios and low penalties in bad scenarios.\textsuperscript{17}

This example demonstrates that there can be too much of a good thing. A balanced pay package should calibrate the fraction of stock-option compensation out of the total pay to prevent too much risk-taking.\textsuperscript{18} The problem is that no one really knows what the golden rule for such a compensation package should be.\textsuperscript{19} Each corporation has its own different needs, and thus calculating the optimal compensation package in this respect involves many uncertainties. Most corporations try to overcome this challenge through the assistance of compensation consultants, whose work is characterized by much trial and error. In the twenty years leading up to the beginning of the twenty-first century, this process of calculating the appropriate fraction of options to grant executives seemed to lead in only one direction, with the proportion of options relative to total pay in the entire economy steadily increasing every year. Over the last decade, however, there was a gradual decline in option compensation, accompanied by an increase in restricted stock compensation, which induces less risk-taking than options.\textsuperscript{20} Yet in many firms, even today the most risk-inducing incentives, such as options and short-term performance bonuses, comprise the lion's share of the pay packages of the firm's top executives.

The changing figures of the total value of executive pay packages reveal a revolutionary shift in managers pay over the last three decades. Between the years 1980 and 1994, the average executive compensation rose by 209\%\textsuperscript{21} and, between the years 1992 and 1998, it almost tripled, with the average compensation to the top five executives in the largest 500 U.S. companies climbing from $2,335,000 to $6,549,000.\textsuperscript{22} The increase in average CEO total compensation was even more stunning in the period between 1993 and 2000, growing from $3,700,000 to $17,400,000.\textsuperscript{23}

\textsuperscript{17} Some types of performance bonuses may exacerbate the abovementioned risk-inducing nature. For instance, a guaranteed bonus raises the threshold of firm performance that the manager must meet in order to increase her pay without raising the penalties in the event of misperformance. See, e.g., Lucian Bebchuk, \textit{Bonus Guarantees Can Fuel Risky Moves}, WALL ST. J., Aug. 27, 2009, available at http://online.wsj.com/article/SB125131480049161335.html (discussing and illustrating the incentives generated by guaranteed bonuses).


\textsuperscript{19} See, e.g., MACEY, supra note 9, at 37 ("inducing managers to engage in the appropriate level of risk-taking is one of the central challenges of corporate governance").

\textsuperscript{20} Restricted shares are shares that the executive must hold for a specified period. Shares provide a more symmetric link to performance than options do, since the executive benefits from increases in the share value as much as she suffers from drops. Another way to understand the less risk-inducing nature of restricted shares is to view them as options with an exercise price of zero (deep in-the-money options). Note, however, that when the corporation is highly leveraged, even restricted stock may induce overly excessive levels of risk from a social welfare point of view. Due to limited liability, share prices cannot become negative, and, hence, managers and shareholders alike may opt for excessive risk profiles at the expense of the firm's creditors.

\textsuperscript{21} Hall & Liebman, supra note 12, at 655 (reviewing the compensation practices of the 400 largest public firms).


This rise in executive pay should, to a large extent, be attributed to the increasing usage of stock-based compensation, especially stock options. In 1985, the value of options granted to executives comprised only 8% of the average total of CEO compensation in the largest U.S. companies; however, this grew steadily, with the fraction of equity-based compensation peaking at 78% in 2000 and 76% in 2001. Moreover, whereas in 1980, only 57% of the top executives had held options in their firms, in the year 1999, 94% of the largest companies granted options to their executives.

It was only at the beginning of the twenty-first century that the ratio of option compensation began to decline, leading also to a gradual reduction in the total value of executive pay. In one empirical dataset of the 250 largest U.S. corporations, the fraction of the value of options out of total compensation was 60% in 2000, 50% in 2001, 40% in 2002, 35% in 2003, and 25% from 2005 to 2007. One of the major arguments made in this paper is that this gradual reduction was in part a market adaptation to phenomenon discussed here. As noted in Part III, when managerial adaptive tactics were exposed and subsequently impeded, the market had to deal with increased risk-taking incentives. A decline in the use of stock options would mitigate the problem. However, at least for industries that can rapidly enhance their risk profile, particularly the finance industry, the gradual decline in options usage may not be a sufficient remedy.

Note, too, that a sharp reduction in option grants could actually enhance managerial incentive to add on risk. Of particular relevance is the fact that the discontinuation of option grants does not impact existing options. For as long as the executive anticipates future option grants, she might tend toward moderate risk levels, since extreme inferior outcomes may endanger her prospects of receiving such grants. But when expectations of future grants are suddenly reduced, the manager may take excessive risk in order to take full advantage of her last chance to earn large amounts from her existing options.


Walker, supra note 11, at 18 fig. 3. However, there is considerable divergence among firms, with many still offering their top executives extremely generous option packages. Walker, supra note 11, at 27-28 fig. 6.

As a matter of timing, the decline followed the new regulation. IMEN FAKHFAKH, IMPACT OF SOX ON CEO COMPENSATION AND EARNINGS MANAGEMENT (2009), available at http://ssrn.com/abstract=1400683 ("We document that there was a significant decline in the ratio of incentive compensation to salary after the passage of SOX.").

This prediction is in line with a somewhat analogous finding that links discontinuity in equity compensation and accounting irregularities. See Cheng & Warfield, supra note 72, at 467 ("Overall, these results suggest that CEOs with high equity incentives take more income-increasing abnormal accruals …
Moreover, concentrating on options alone underestimates the fraction of pay that induces extreme levels of risk-taking. Performance bonuses, which have similar risk-incentivizing attributes, are also prominently used by firms, and the fraction of the value of options, combined with annual bonuses, still tops 50% even today. An exemplary case is that of Richard Fuld, the former CEO of Lehman Brothers, which was notorious for the risk-loving activity that led to its collapse. Fuld, who was often among the most highly paid executives in the U.S., received relatively modest option grants ($900,000 in value per annum in 2004 and 2005), when compared to his base yearly salary of $750,000. This, however, is misleading as to the real risk-inducing nature of his compensation. Indeed, his annual performance bonus of $10,250,000 in 2004 and $13,750,000 in 2005 could perhaps explain his managerial choices that led Lehman to such a seemingly good (but also extremely risky) performance shortly before its bankruptcy.

Today, many argue in retrospect that the described patterns of executive compensation led to the excessive risk levels that culminated in the current financial crisis. Bear Stearns and Lehman Brothers, the two toppled financial giants, now infamously associated with adverse risk-preference, serve as a good example. The top five executives at Bear and Lehman earned, respectively, a total of $1.4 billion and $1 billion through short term bonuses and sales of their equity compensation during the period of 2000 to 2008.

The questions that must be asked are how could the market disregard the enhanced risk potential and what delayed the emergence of crisis? The crux of the answer that is offered in the next part of the paper is that managers used a variety of tactics to adapt to the risk-inducing pay schemes. These tactics counterbalanced the effects of the risk incentives and allowed the market to intensify the usage of options and bonuses without causing any turmoil. At some point, due to regulatory changes and other market developments, many of the adaptive tactics became unavailable, rendering the incentive-pay structures far more potent as inducers of risk. Although a decline in the use of risk-inducing pay schemes did ensue under the new market conditions, this could not counterbalance the intensification of managers’ proclivity for risk-taking. At least not in the financial industry, which has ample opportunities to rapidly enhance its risk profile. Understanding this series of events can therefore shed light on the delayed impact of the risk-inducing pay schemes. It also can explain how the market could overlook the possible ramifications of these pay schemes for such a prolonged period of time, which, in 2008, became too drastic to ignore.

[R]esults are largely driven by managers with less persistent equity incentives, who are less concerned with the accrual reversal and have fewer incentives to reserve for the future.


31 In 2007, the bonus dropped to $4,250,000, and in 2008, he lost his seat when the company went bankrupt. In accordance with his compensation scheme, Fuld was never required to return the bonuses he had earned in the past. Fuld also received hefty grants of restricted stock ($10,357,143 in 2004 and $14,942,021 in 2005), meaning that the two components that spike risk levels (performance bonuses and options) amounted to about 50% of his compensation package. Id.

32 See the discussion and references in the Introduction and at supra nn. 1-2.

33 Lucian Bebchuk, Alma Cohen & Holger Spamann, Bankers Had Cashed in before the Music Stopped, FIN. TIMES, Dec. 7, 2009, at [?].

34 Some critics recognized the inherent potential harm of the existing pay practices even before the current crisis. See, e.g., LAWRENCE E. MITCHELL, THE SPECULATION ECONOMY: HOW FINANCE TRIUMPHED
Part III: The Rise and Fall of Adaptive Responses to Equity-Based Compensation

For a good number of years, from the early 1990s to the early years of the twenty-first century, managers reacted to the rising phenomenon of option compensation by employing a wide range of adaptive tactics, mostly hidden from the public eye. These tactics were aimed mainly at allowing managers to garner easy gains from their option compensation packages without any need for improved performance. But as we shall see below, these practices also diminished the risk-enhancing nature of option-based pay. Each year, compensation committees granted ever-increasing option packages, while managers resorted to more and more adaptive tactics. It was therefore small wonder that the dark side of option compensation did not materialize for many years. However, a series of events at the turn of the twenty-first century exposed and led to the condemnation of many of these tactics, which, as a consequence, almost completely vanished. Both the scholarly literature and press hailed the ensuing regulation and market activities that overcame the adaptive tactics, but without recognizing the ramifications for risk-taking. In the absence of adaptive tactics and with so many options already on board, enhanced risk and the ensuing financial crisis were only a matter of time. This Part will discuss the rise and fall of these various adaptive tactics. I begin with those tactics that directly circumvented the mechanism of option compensation (some of which are relevant to performance bonuses as well) and then proceed to the hidden pay practices that indirectly also countered the risk-inducing aspect of stock options and performance bonuses.

A. Circumventing the Stock-Option Mechanism: Gains without Performance

There were at least three major adaptive tactics that managers used to reap easy profits from option compensation: backdating, financial misrepresentations, and option repricing.35 These otherwise undesirable practices and their incredibly extensive usage have been the subject of intense discussion in the literature. Nonetheless, yet to be considered is their considerable impact on corporate risk-taking. As this paper explains, these practices all had the side-effect of averting much corporate risk-taking. However, when new regulation, litigation, and market forces operated to thwart further usage of these tactics, it seems that no one fully grasped the inevitable consequence of enhanced incentive to add on risk.

35 An obvious additional adaptive tactic that comes to mind is stock options hedging. In such a transaction, the manager would swap the income stream derived from her options with a steady stream of income. However, this type of hedging (unlike hedging of stock holdings) for top managers appears to be precluded by the regulation. See David M. Schizer, Executives and Hedging: The Fragile Legal Foundation of Incentive Compatibility, 100 COLUM. L. REV. 440 (2000) ("[T]he bottom line is that, at least for now, executives are unable to hedge option grants . . . the securities law blocks some types of options hedging . . . and the tax law blocks the rest . . . .")
1. Backdating

The impact that option backdating has on risk-taking is perhaps the most obvious from amongst all the adaptive tactics. Backdating is the illegal practice of issuing options with a misrepresentation of an earlier grant date when the company’s share prices were especially low. In the U.S., options are almost always granted with an exercise price that is equal to the share market price on the date of grant, referred to as "at-the-money options." With backdating, therefore, the options are in fact granted with an exercise price that is lower than the market price at the actual grant date, referred to as "in-the-money options." The public and regulatory outrage that ensued with the exposure of the pervasiveness of backdating revolved around the falsification that this practice involves and the profits that managers reap from its usage. In addition, however, backdating also lessens the risk-inducing nature of option grants. Simply put, a manager with at-the-money options has greater incentive to increase corporate risks than a manager with options that are “in the money.” A manager’s payoff will be impacted only by the upside of a risky profile if she holds at-the-money options, whereas with in-the-money options, she will suffer loss from part of the downside too.

To illustrate, assume a market price of $30 for a company’s shares. Further assume that due to backdating, the manager receives her options with a strike price of $25 (she falsely claims that the options were granted earlier when share prices were lower). Now assume that the manager can select a risk profile that has a 50% chance of increasing share values by $10 and a 50% chance of reducing share values by $10 (with an equal chance of either scenario materializing when she can exercise her options). Because of backdating, the average payoff of the risky profile per each option held by the manager is $2.5 (50% * -$5 + 50% * $10). In the absence of backdating and with a strike price of $30, the payoff per option for this risky profile would be twice as much (50% * $0 + 50% * $10 = $5). Therefore, backdating, it emerges, has the indirect effect of mitigating risk-taking. In fact, even putting aside the rational explanation illustrated by this example for this risk-aversion effect, it is fairly possible that backdating had an even greater impact on the reduction of risk-taking: for managers, the very idea, at the outset, of having to lose something could create a mindset that would cause them to be particularly careful when setting the corporate risk level.

The exposure of the backdating practice, its unbelievable magnitude as a phenomenon, and the fact that managers were able to conceal it for so long came as a

36 See Brian J. Hall & Kevin J. Murphy, Optimal Exercise Prices for Executive Stock Options, 90 AM. ECON. REV. 209 (2000) (“One of the most striking facts about executive stock options is that the exercise price is nearly always set equal to the current stock price at the grant date.”).

37 But cf. David Walker, Unpacking Backdating: Economic Analysis and Observations on the Stock Option Scandal, 87 B.U. L. REV. 561 (2007) (observing that since options cannot be exercised for several years, the difference between the market price and the exercise price at the date of the grant is an overestimation of the real gains that backdating brings about).

38 The tendency to avoid a sense of loss is described in the behavioral literature as loss aversion. See, e.g., Daniel Kahnman & Amos Tversky, Loss Aversion and Riskless Choice: A Reference-Dependent Model, 106 Q.J. ECON. 1039 (1991) (observing the loss-aversion phenomenon). The mindset described in the text is also linked to another behavioral bias known as the endowment effect. See, e.g., Daniel Kahnman et al., Experimental Tests of the Endowment Effect and the Coase Theorem, 98 J. POL. ECON. 1325 (1990) (describing the famous coffee mugs experiment, in which participants valued objects more after obtaining them).
shock to the public. The SEC subsequently launched investigations into more than one-hundred companies with respect to the timing and pricing of stock options they granted during the boom years of the late 1990s and early 2000s. Apparently, however, this figure is merely the tip of the iceberg, with certain studies estimating that as much as 20% of the option grants to top executives in that period tainted by backdating. Interestingly, unlike other adaptive tactics, it was not the revelation of backdating that triggered the enactment of the regulation (in this case the 2002 Sarbanes-Oxley Act) prohibiting the practice. Indeed, quite the opposite was the case: the preclusion of backdating was in fact an indirect outcome of the Sarbanes-Oxley legislation, which had never been intended to combat the still-unexposed practice.

A seminal empirical paper by David Yermack with data from the 1990s showed that during this period, executives enjoyed better returns from their equity-based compensation than did other ordinary investors. Specifically, Yermack uncovered a pattern in which options to executives were often granted just prior to a rise in share prices. The common interpretation for this finding was that managers were able to time the grant date of their option award before the company showed improved results, a practice known as spring loading.

In 2002, as part of a general initiative to improve transparency and rapid disclosure, the Sarbanes-Oxley legislation drastically shortened

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39 This phenomenon has been discussed in numerous papers. See, e.g., Lucian A. Bebchuk, Yaniv Grinstein & Urs Peyer, Lucky CEOs and Lucky Directors, [volume] J. FIN. (forthcoming 2010), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1405316; Walker, supra note 37; Randall A. Heron, Eric Lie & Todd Perry, On the Use (and Abuse) of Stock Option Grants, 63 FIN. ANALYSTS J. 17 (2007). As expected, there is evidence that executive equity compensation significantly spurred the practice of backdating. See Daniel W. Collins, Guojin Gong & Haidan Li, Corporate Governance and Backdating of Executive Stock Options (2007), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=934881 (showing that the tendency to backdate is stronger when stock options comprise the greater share (“the bulk”) of CEO compensation and that firms with weaker governance structures that allow CEOs to exercise greater power over the board and its committees are more likely to engage in executive-option backdating).

40 See Walker, supra note 37, at 563 (“In the years since the scandal was uncovered, the SEC has launched investigations into suspicious timing and pricing of stock options granted during the go-go years of the late 1990s and early 2000s at more than one hundred companies… .”).

41 Id. at 563 (“[R]ecent papers suggest that this figure represents only the tip of the iceberg—that perhaps 10% to 20% of options issued to senior executives during this period may have been backdated in order to reduce option exercise prices.”). See also John M. Bizjak, Michael L. Lemmon & Ryan J. Whitby, Option Backdating and Board Interlocks, 22 REV. FIN. STUD. 4821 (2009), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=946787 (estimating that during most of their sample period, between 7% and 20% of the firms backdated).


43 See Desimone v. Barrows, 924 A.2d 908, 918 (Del. Ch. 2007) (“The practice of ‘spring loading’ stock options involves making market-value options grants at a time when the company possesses, but has not yet released, favorable, material non-public information that will likely increase the stock price when disclosed.”). Another related practice, known as “bullet-dodging,” that leads to superior returns for managers is delaying the grant date until after the disclosure of negative information about the company, which, in turn, reduces the options strike price. Id. (“[B]ullet-dodging” options are granted just after the company releases negative information to the market thereby allowing the recipient the benefit of a lower exercise price that reflects the price decline caused by the negative information.”). See also In re Tyson Foods, Inc., 919 A.2d 563, 593 (Del. Ch. 2007) (discussing spring loading and bullet-dodging).
the timeframe for disclosure of executives’ equity grants. Thereafter, managers had only two business days to report any option grant. A few years down the road, Eric Lie inquired into the impact of this change on managers’ returns from their options. It emerged from the study that Sarbanes-Oxley had dramatically reduced these returns, a finding that led to the revelation of the scandalous practice of backdating. Since managers could no longer report option grants more than two days after the grant, they had to forsake falsely reporting older grant dates with artificially low strike prices. Inadvertently then, the Sarbanes-Oxley Act eradicated, almost entirely, the practice of backdating.

The almost immediate disappearance of backdating following the enactment of Sarbanes-Oxley in 2002 dealt a major blow to managerial adaptive responses to option compensation. For many years, and certainly from the mid-1990s until 2002, many managers had exploited a loophole in the then-existing regulation to receive in-the-money options disguised as at-the-money options. This possibility was no longer available. As demonstrated and discussed above, backdating softens the risk-inducing incentives that options generate; when backdating departed the scene, it took that offsetting effect with it. Unfortunately, since it took quite a few years to uncover the scandal even after backdating became unfeasible, no outsider could begin to imagine the elevated appetite for risk that this change would create. In fact, even after the exposure of backdating, attention was directed only at managers' misrepresentation and the gains they were able to reap through this adverse practice. The important impact on risk-taking tendencies went by unnoticed. As explained in this paper, however, this was only one step of many towards changing the landscape of executive incentive compensation, where managers were driven to take risky paths. Another adaptive tactic, financial misrepresentation in firm disclosures, to which I turn to below, was perhaps the most significant one, impacting option compensation and performance bonuses alike.

2. Financial Misrepresentation

Perhaps the most pervasive and widely-used adaptive tactic that offset managerial risk-taking was the manipulation of financial disclosures. The discussion of this adaptive tactic thus constitutes the heart of the paper and is its most innovative part. Part of the phenomenon is outright illegal, taking the form of securities fraud or "cooking the

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45 See, e.g., Eric Lie, On the Timing of CEO Stock Option Awards, 51 MGMT. SCI. 802, 805 n.3 (2005) ("[E]ffective August 29, 2002, the SEC changed the reporting regulations with respect to stock option grants. Specifically, firms must now report executive stock option grants within two business days. This is likely to affect the timing of stock option grants documented herein.").
46 See id.; Bebchuk, Grinstein & Peyer supra note 39, at 7-8, 38 ("About 12% of the CEO grant events were reported to be given at the lowest price of the month, whereas only 4% of the grant events were reported to be given at the highest price of the month.").
47 Even in the absence of backdating, managers could still time the grant date (or time the release of news) to enrich themselves. These timing games may also soften the risk-inducing effect of options, but as evidenced by Lie's work, after the Sarbanes-Oxley legislation, the leeway became substantially narrower. See Lie, supra note 45, at 806. Moreover, in contrast to backdating, these other practices do not offer the same certainty that the options granted are in fact in-the-money.
books”; the other part, however, lies somewhere in the legal grey area of abuse of managers' discretion in financial and accounting disclosures. Apparently, until the passage of the Sarbanes-Oxley Act in 2002, and the enactment of its accompanying regulation, the legal environment in the U.S. had been fairly lax, allowing managers considerable freedom to whitewash and sugarcoat disclosures.\footnote{John C. Coffee, Jr., \textit{What Caused Enron? A Capsule Social and Economic History of the 1990s}, \textit{89 Cornell L. Rev.} 269, 282 (2004).} The empirical literature is quite unequivocal regarding the link between equity-based compensation and financial misrepresentation in all forms. Once managers receive equity-based compensation, they have incentive not only to improve firm performance but also to misrepresent it. What is less obvious, however, and has gone unnoticed in the literature thus far is the connection between financial misrepresentation and the incentive to reduce risk-taking.

Generally speaking, and given certain assumptions, the ability of managers to manipulate financial disclosures offsets, at least in part, the risk-inducing feature option compensation (and performance bonuses). To understand this mitigating effect, consider the following simple example. Imagine a world with accurate disclosure, where a manager receives at-the-money options with a strike price of $50 (the market value of the company’s shares at the grant date). Assume that the manager has to opt for one of two alternative risk profiles: the conservative profile would yield with certainty a profit that would increase share prices by $5 to $55 a share; the risky profile would have an equal chance of either increasing share prices by $15 to $65 a share or decreasing prices by $15 to $35 a share. In such a world, option compensation would drive the manager towards the risky profile. The upside of the risky profile offers the manager an expected profit of $7.5 (as an option holder, she does not have to worry about the downside),\footnote{In the good state of the world, share prices would reach $65, which would lead to a $15 gain per option after deducting the options’ $50 exercise price. Since the good state of the world has a 50% materialization rate, the manager’s expected profits would be $7.5 per option. The materialization of the bad state of the world would not influence the outcome, since the manager would not exercise her options when share prices decline to $35.} as compared to the non-risky alternative, which would yield only a $5 profit per option.

Consider now that the manager can misrepresent the results of the firm’s operations to a certain extent and manipulate share prices at the time that she can exercise her options. Assume that with any given risk profile and in any state of the world, share prices can be inflated in such a manner so as to add a maximal value of $10 to share prices at the point in time when the manager can exercise her options. Interestingly, this would turn the previous outcome on its head, as under the non-risky profile, the manager could now exercise her options for a profit of $15 each ($65 share price after misrepresentation minus $50 exercise price). The risky profile, however, would now offer the manager an expected return of only $12.5 per option. The reason for this is that the bad state of the world still would generate no returns for the manager even after misrepresentation,\footnote{In the bad state of the world of the risky profile, share prices would decline to $45 ($35 without misrepresentation), which would be less than the exercise price of $50.} whereas in the good state of the world (which has a 50% chance of materializing), the manager could hope for a $25 profit ($75 share price after misrepresentation minus $50 exercise price). And since $12.5 (50% of $25) is less than the profit that would obtain from the non-risky profile ($15), the tendency towards risk will vanish.
To generalize, then, managers’ ability to misrepresent and inflate share prices reduces the risk preference that attaches to option-based compensation. The intuition is that risk increases the chances of options’ being out-of-the-money at the time of exercise. Once options are out-of-the-money, inflating share prices will not fully increase the payoff to option holders at the time of exercise. On the other hand, with options that become in-the-money (which is the more likely case with non-risky profiles), every dollar of inflated share prices immediately translates into a dollar of profit per every option exercised. Similar conclusions apply to performance bonuses as well. The asymmetric nature of such bonuses—i.e., hefty payoffs in good states of the world and no penalty in bad states of the world—make the above example and what it illustrates applicable also to this type of compensation. And since annual performance bonuses often rely on accounting measures, the impact of misrepresentation is even more direct.

To be sure, our example implicitly assumes that risk is not correlated with the ability to manipulate share prices. For if increased risk were to enhance managers’ ability to manipulate, this feature would in fact undermine our general conclusion here. However, complexity of a firm’s business should not be confused with its risk profile. Complexity certainly fortifies the ability to obscure disclosure and, in turn, managers’ ability to manipulate share prices, but this does not necessarily hold for all risky business profiles. Rather, complexity and obscure disclosure often result from diversification of the business model, which is a well-recognized method for reducing risk. Ultimately, however, the question of a correlation between risk and the ability to manipulate share prices is an empirical one. As discussed in further detail below, the broad scope of accounting restatements in all industries that existed just prior to the Sarbanes-Oxley legislation implies that the ability to manipulate was not necessarily tied to any specific business model.

This returns us to the market developments at the beginning of the twenty-first century. As will be shown, the empirical literature points to a clear link between equity-based compensation and financial misrepresentation. The overlooked side-effect of this link is that option compensation must have triggered less risk than it would otherwise have induced. It should come as no surprise that once misrepresentation became much less feasible for managers, risk levels rose rather rapidly. Indeed, the period during which there was a vast increase in option compensation arrangements witnessed also unprecedented securities fraud and earnings management. From an average of about 50 public company restatements per year in the period of 1990 to 1997, the frequency rose to 201 in 2000 and 225 in 2001, one year before the passage of the Sarbanes-Oxley legislation.

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legislation. Put differently, an unimaginable volume of one in ten U.S. public firms announced at least one restatement between 1997 and 2002.\(^{55}\) with the incidence of restatements growing tenfold from 1990 to 2000.\(^{56}\) Moreover, since restatements are only required in the most extreme cases of accounting failure, these figures represent perhaps only the tip of the iceberg as to the actual financial misrepresentation that was going on during this period.\(^{57}\) Indeed, we should assume that much of the accounting manipulation and whitewashing simply went unnoticed or failed to reach the extreme of requiring a restatement.

Inaccurate accounting and earnings management came at a huge cost to the specific firms involved and the American market as a whole. The federal government’s General Accountability Office estimated at least $100 billion in market losses for restating corporations;\(^{58}\) one academic study showed that restating firms had lost, on average, no less than 25% of their market value.\(^{59}\) Yet these numbers, too, are an underestimation of the actual loss, since not all cases of fraud and financial irregularities were detected. Tellingly, it emerged from the findings in one study that an accounting restatement by one firm induced share price declines also among non-restating firms in the same industry.\(^{60}\) All together, the direct and indirect consequences of financial fraud and misreporting contributed to the downturn of U.S. capital markets, which, from 2001 to 2002, plummeted by 32%.\(^{61}\)

As noted above, the theoretical and empirical literature both reveal a link between equity-based compensation (especially options) and financial manipulation.\(^{62}\) Michael

\(^{56}\) The evidence is summarized in John C. Coffee, Jr., A Theory of Corporate Scandals: Why the USA and Europe Differ, 21 OXFORD REV. ECON. POL’Y 198, 201 (2005).
\(^{57}\) See id. at 199 (“one suspects that these announced restatements were but the tip of the proverbial iceberg, with many more companies negotiating changes in their accounting practices with their outside auditors that averted a formal restatement”).
\(^{60}\) Cristi A. Gleason, Nicole Thorne Jenkins & W. Bruce Johnson, The Contagion Effects of Accounting Restatements (AAA 2005 FARS Meeting Paper 2007), available at http://ssrn.com/abstr=591689 (finding that accounting restatements that adversely affect shareholder wealth at restating firms also induce a parallel share price decline among non-restating firms in the same industry, especially if the other firms had the same external auditors or indications of low-quality accounting).
Jensen has noted that the practice of paying managers with shares and stock options is like “throwing gasoline” onto the inflated stock prices “fire.”63 Thus, even though the connection between financial misrepresentation and risk-taking incentives has not been discussed in the literature, the former has been identified as a managerial reaction to incentive pay.64 Rather than trying to summarize the entire body of recent and steadily growing empirical literature on the subject, we shall concentrate on two pivotal and representative papers.65 The first is a study that discusses detected cases of misrepresentation, and the second a study that addresses covert and implied cases.

The first study focused on accounting restatements and their relation to the structure of executive pay in a given firm.66 An accounting restatement is a remake of previous financial reports that occurs upon discovery of a significant accounting error that resulted in a substantial misrepresentation of the earlier financial reports. Restatements are always related to misrepresentation and are often an indicator of pure fraud. This particular study found that the likelihood of misstated financial statements increases dramatically when the CEO has sizable holdings of in-the-money options.67 Examining restatements announced during 2001 and 2002, the study compared a sample of ninety-five restating firms with a control sample matched in size and industry. The authors measured many factors that could potentially differentiate between the restating firms and their control sample, with the most influential factor found to be the CEO’s compensation structure and, specifically, the value of her in-the-money stock options. The staggering findings gained even greater force in the specific context of restatements involving major accounting irregularities and malfeasance.

The magnitude of the differences between the restating firms and their non-restating peers was dramatic. The average value of CEO option holdings at restating firms was $50,106,370, whereas at the matched firms, it stood at only $8,881,680.68 Moreover, the average value of CEO holdings at restating firms where there was evidence of accounting malfeasance was strikingly higher, at $130,160,680, than the average of $14,930,990 at the matched firms.69 The study also exposed the immediate benefits that CEOs derived from misreporting. CEOs of companies that later announced accounting restatements exercised options worth an annual average of $4,181,600 (and $7,744,240 in cases of accounting malfeasance); this exceeded by far the average of $436,930 ($2,616,210 where there was accounting malfeasance) at the matched firms.70

64 The view that equity-based compensation encourages financial misreporting is widespread as well, both amongst the public and within financial circles. See, for example, the statement made by Senator William Gramm linking the accounting misconduct of Enron’s managers to their compensation scheme, at 148 Cong. Rec. S6628 (daily ed. July 11, 2002).
65 For a broader description of the relevant empirical literature, see Hannes, supra note 11.
67 In-the-money options are options that have a strike price that is lower than the market value of the company’s shares at the actual grant date. Thus, hypothetically, if exercised at such point, they reap an immediate profit.
68 Efendi, Srivastava & Swanson, supra note 66, at 669.
69 Id.
70 Id. at 670.
Finally, the study showed that misrepresentation actually inflated the value of the restating companies' stock (or at least backed-up an already-inflated value). Thus, the study revealed "that restating firms' returns exceeded the market by about 20% (27% for firms with accounting malfeasance); in comparison, control firms, matched on industry and size, earned approximately the market return."\(^7^1\) These findings led the researchers to conclude that managers with option compensation take action to support the inflated stock price through accounting manipulation.

The second groundbreaking study analyzed firms that meet or just beat analysts' forecasts, without any explicit evidence of misrepresentation.\(^7^2\) The authors found a significantly higher incidence of meeting or just beating forecasts amongst firms with higher managerial equity incentives.\(^7^3\) "[A] one standard deviation increase in unexercisable options increases by 16.3 percent the odds of meeting or just beating analysts' forecasts, while a one standard deviation increase in ownership increases by 30.5 percent the odds of meeting or just beating analysts' forecasts."\(^7^4\) Moreover, "[o]f 4,301 firm-years with equity incentives and earnings surprises in the period 1993-2000, 25 percent have zero earnings surprises, i.e., meeting analysts' forecasts, 17 percent beat analysts' forecasts by one cent, but less than nine percent miss analysts' forecasts by one cent."\(^7^5\)

Based on their analysis, which controlled for firm performance and other potential confounds, the authors concluded that their findings are more consistent with earnings management induced by equity incentives than improved firm performance. It further emerged from the study that managers with high equity incentives sell more shares after meeting or beating analysts’ forecasts than after missing forecasts. In contrast, the authors did not find evidence of similar behavior for managers with low equity incentives.\(^7^6\) These outcomes are consistent with the notion that there is an increase in stock-selling by managers with high equity incentives following earnings management. Lastly, the study found that managers with high equity incentive use, on average, more income-increasing accounting techniques (usage of abnormal accruals)\(^7^7\) and that managers sell more shares after taking such measures.\(^7^8\)

The legal reaction to the accounting scandals at the beginning of the twenty-first century was swift, spearheaded by the Sarbanes-Oxley Act and the ensuing regulation.\(^7^9\)

\(^7^1\) Id. at 694.
\(^7^3\) Id. at 470. See also MARY LEA MCANALLY, ANUP SRIVASTAVA & CONNIE D. WEAVER, EXECUTIVE STOCK OPTIONS, MISSED EARNINGS AND EARNINGS MANAGEMENT: EVIDENCE FROM BOOK-TAX DIFFERENCES (AAA 2007 Financial Accounting & Reporting Section (FARS) Meeting Paper 2007), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=925584 (showing that option grants sometimes encourage managers to miss a quarterly earning target intentionally and that, evidently, firms that miss earning targets have larger and more valuable subsequent grants); David Aboody & Ron Kasznik, CEO Stock Option Awards and the Timing of Corporate Voluntary Disclosures, 29 J. ACCT. & ECON. 73 (2000) (empirically showing that managers time stock grants and disclosures to earn rents).
\(^7^4\) Cheng & Warfield, *supra* note 72, at 455.
\(^7^5\) Id. at 452.
\(^7^6\) Id. at 443.
\(^7^7\) This is especially true regarding managers with less persistent equity incentives—those who are less concerned with the reversal of accruals, *id.* at 467.
\(^7^8\) *Id.*
The new measures instituted under the Act included: more stringent disclosure rules; mandatory managerial certification of periodic reports; incentive compensation clawback provisions; greater board independence with enhanced financial understanding; and improved auditor oversight and independence requirements. The Act has both its proponents and vocal opponents. While it is hard to draw broad conclusions as to the Act’s implications, the bottom line does seem to be an improved disclosure environment, albeit at a perhaps unjustified cost. Yet, if this paper is correct in its

of Law, Law-Econ. Research Paper No. 07-17, 2007), explains that the Sarbanes-Oxley Act has had the biggest impact on American business of any federal securities legislation since the New Deal.


Perhaps the most salient requirement in this area is that all listed companies create audit committees comprised solely of independent directors. Sarbanes-Oxley Act § 301, 2002 U.S.C.C.A.N. (116 Stat.) at 775-77 (codified at 15 U.S.C. § 78j-1(m)).


Opponents claim that the Act unjustifiably increased the regulatory burden on public firms. See, e.g., Harvey Coustan, Linda M. Leinicke, W. Max Rexford & Joyce A. Ostrosky, Sarbanes-Oxley: What It Means to the Marketplace, 197 J. Acct. 43 (2004); Jeffrey N. Gordon, Governance Failures of the Enron Board and the New Information Order of Sarbanes-Oxley, 35 Conn. L. Rev. 1125 (2003) (“[T]he Act also seems to contemplate ‘real time’ disclosure of material business developments even in circumstances where premature disclosure may well sacrifice shareholder value for very little gain in capital market efficiency. This I call ‘price-perfecting disclosure’ and believe that eliminating the board's discretion to this extent may be unwise….’”); Larry E. Ribstein, Market vs. Regulatory Responses to Corporate Fraud: A Critique of the Sarbanes-Oxley Act of 2002, 28 J. Corp. L. 1 (2002); Roberta Romano, The Sarbanes-Oxley Act and the Making of Quack Corporate Governance, 114 Yale L.J. 1521, 1528 (2005) (“SOX was emergency legislation, enacted under conditions of limited legislative debate, during a media frenzy involving several high-profile corporate fraud and insolvency cases.”); Oliver Hart, Regulation and Sarbanes-Oxley, 47 J. Acc. Res. 437 (2009) (suggesting that rather than being based on sound principles, the regulation was the consequence of the public outcry for action).


See, e.g., Peter Iliev, The Effect of the Sarbanes-Oxley Act (Section 404) on Audit Fees, Accruals and Stock Returns (2007), available at http://ssrn.com/abstract=983772 (showing that firms with a public float of about $75 million incurred double the amount of their previous annual audit fees due to the certification requirement, with audit fees rising on average from $370,700 to $882,300, but also showing that the requirement for a certification report induced managers to cut back on discretionary accruals). One should also keep in mind the indirect costs of the legislation. See Ehud Kamar, Pinar Karaca-Mandic & Eric L. Talley, Going Private Decisions and the Sarbanes-Oxley Act of 2002: A Cross-Country Analysis (USC CLEO Research Paper No. C06-5, 2006), available at...
claim that inaccurate disclosure restrained corporate risk-taking, then the improved accuracy should have in fact had a risk-triggering effect. From the perspective of this paper, then, the important lesson to be learned is that Sarbanes-Oxley may have entailed another, yet-to-be-discussed type of cost: enhanced risk-taking incentives.\(^8\)

### 3. Option Repricing

A third adaptive tactic that was widely used until it was regulated by the major stock exchanges is option repricing. Repricing is the practice of resetting the exercise price of options once share prices have declined and the options become deeply out of the money.\(^8\) This tactic was never illegal, nor was it a covert mechanism (unlike backdating and financial misrepresentation, corporations made public announcements about repricing). Nevertheless, developed by executives, it was a practice that shareholders could do little to oppose. Managers therefore took advantage of this mechanism in order to reap gains from options that would have otherwise been all but obsolete.\(^9\)

Repricing has complex risk-taking implications that have never been fully discussed in the literature. Ex ante, when options are granted, the possibility of repricing can actually boost managers’ risk-taking tendencies,\(^9\) for managers know that even if they lead the firm to a severe loss, they will still have a second opportunity to generate a profit from their otherwise worthless options. However, ex post, when options are already out of the money (often for reasons completely unrelated to the managers’ performance), the possibility of repricing diminishes risk-taking.\(^9\) In the absence of the

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\(^8\)http://ssrn.com/abstract=901769 (finding that the Sarbanes-Oxley Act caused small-sized firms to go private).

\(^9\)Interestingly, one influential empirical study came to the opposite conclusion with regard to a sample of foreign firms that cross list on the U.S. stock markets. KATE LITVAK, DEFENSIVE MANAGEMENT: DOES THE SARBANES-OXLEY ACT DISCOURAGE CORPORATE RISK-TAKING? (U. of Texas Law, Law and Econ. Research Paper No. 108, 2008), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1120971 (finding that the risk levels of Sarbanes-Oxley-exposed foreign firms declined after the legislation). However, since foreign firms do not tend to have the typical U.S. executive-compensation arrangements, the Litvak paper may not have captured the effect discussed in the text, which is based on the interaction between the legislation and certain types of incentive-based compensation.


\(^9\)There is also evidence that managers abused the timing of the repricing events. See S.R. Callaghan, P.J. Saly & C. Subramanian, The Timing of Option Repricing, 59 J. FIN. 1651 (2004) (finding that the repricing date often precedes good news or follows bad news); D.M. Chance, R. Kumar & R.B. Todd, The “Repricing” of Executive Stock Options, 57 J. FIN. ECON. 129 (2000) (finding that repricing follows poor firm-specific performance and is more likely to occur in firms with greater agency problems).

\(^9\)See S.A. Johnson & Y.S. Tian, The Value and Incentive Effects of Nontraditional Executive Stock Options Plans, 57 J. FIN. ECON. 3 (2000) (illustrating that the initial incentive effects of repriceable options relative to non-repriceable ones are lower incentives to enhance stock prices and enhanced incentives for volatility).

\(^9\)Several researchers have explored this effect. See, e.g., Daniel A. Rogers, Managerial Risk-Taking Incentives and Executive Stock Option Repricing: A Study of US Casino Executives, 34(1) FIN. MGMT. 95 (2005) (showing that in the U.S., casino industry repricing often targeted managers with excessive risk-
repricing mechanism, out-of-the-money options may increase the tendency to add risk to an extreme point. To illustrate, options with an exercise price of $50 when the share price is $25 require that the manager yield a return of 100% for the shareholders before she can earn a dime from her options. Such returns are highly unlikely without significantly intensifying risk levels. However, resetting the exercise price down to the market price of $25 reinstitutes the original incentive scheme, which induces less risk. Therefore, if there is a strong fear of excessive risk-taking when share prices decline drastically, then the ability to reprice options is an important mechanism for averting such risk-taking.

Despite this impact on risk-taking, however, repricing drew strong fire from both the press and market participants.93 The bursting of the dot.com bubble and the 2001 market crash were followed by many repricing events and, subsequently, the public outrage that eventually led to the passage of new regulation.94 In 2003, the New York Stock Exchange and NASDAQ changed their corporate governance listing requirements in an effort to contend with option repricing, making repricing of employee stock options contingent on a shareholder vote of approval, with limited exceptions.95 The combination of this new requirement and the general animosity of institutional investors towards repricing led to a sharp decline in its use.96

Shareholder resentment towards repricing is understandable. After all, shareholders and non-employee option-holders do not have the option to “reprice” and regain their losses from declines in share prices.98 However, one side-effect of the taking incentives); Stuart C. Gilson & Michael R. Vetsuypens, Creditor Control in Financially Distressed Firms: The Empirical Evidence, 72 WASH. U. L.Q. 1005 (1994) (arguing that creditors encourage repricing to discourage managers from risk-shifting behavior).

93 See James L. Hauser, The Stock Option Repricing Dilemma, J. 17 COMPENSATION & BENEFITS 17 (2001) (discussing the prevalence of stock-option repricing and the market reaction to such events prior to the current regulation that requires a shareholders vote for their approval).


95 See section 303A.08 of the NYSE Listed Company Manual Shareholder Approval of Equity Compensation Plans, amended on June 30, 2003, available at http://nysemanual.nyse.com/LCMTools/PlatformViewer.asp?selectednode=chp%5F1%5F4%5F3%5F10&manual=%2Flcm%2Fsections%2Flcm%2Dsections%2F ([T]he Exchange requires that all equity-compensation plans, and any material revisions to the terms of such plans, be subject to shareholder approval, with the limited exemptions explained below.”). See also Nasdaq Listing Rule 5635(c), available at http://nasdaq.chwallstreet.com/NASDAQTools/PlatformViewer.asp?selectednode=chp%5F1%5F1%5F4%5F2&manual=%2Fnasdaq%2Fmain%2Fnasdaq%2Dequityrules%2F ([same].


98 Note, however, that at least some of the literature views option repricing favorably. See, e.g., Viral V. Acharya, Kose John & Rangarajan K. Sundaram, On the Optimality of Resetting Executive Stock Options, 57 J. FIN. ECON. 65 (2000) (praising repricing when executives may not be the force behind the share price decline).
regulation impeding repricing is enhanced risk-inducement. In the absence of a significant likelihood of repricing, managers with out-of-the-money options must increase risk, sometimes dramatically, in order to make money from their options. Similar to the regulation preventing backdating and the regulation improving financial disclosure, here, too, an important risk-mitigating response to executive compensation disappeared. And, yet again, the new regulation heightened the risk-inducing nature of stock-option compensation.

B. Practices of Hidden Pay

Another category of prevalent managerial adaptive tactics that indirectly offset risk-taking incentives is hidden pay practices. As we shall see, hidden pay and benefits flow from the manager’s stint in itself and are not particularly sensitive to performance. Therefore, in order to secure this type of pay and benefits, managers will tend to reduce the risk that option compensation and performance bonuses would otherwise yield. The larger the fraction of compensation that is untied to performance, the lesser the risk we should expect. At the outset of the twenty-first century, it became clear that U.S. managers reap hefty benefits from hidden pay practices, including pension rewards, executive loans, spinning, and certain types of self-dealing transactions. Market developments, media coverage, exposure in academic studies, and new regulation (beginning with the Sarbanes-Oxley legislation and ending with the 2006 SEC-enhanced disclosure requirements) all hampered the availability of many of these practices. Indirectly, these constraints on hidden pay practices meant that the proportion of compensation unrelated to performance declined and, hence, risk-taking incentives rose.

Managers have always had an incentive to obscure as much of their compensation as possible; public and investor outrage are good enough reason for avoiding exposure. However, hidden pay should also be understood as an adaptive response to incentive compensation, and it therefore flourished alongside the ascent of incentive pay. Since institutional shareholders and other market participants became keen on option compensation, it was important for managers to report a high fraction of incentive pay out of their total compensation. With hidden pay that is unrelated to firm performance, managers can report an artificially inflated percentage of option and stock-based compensation. Thus, while simultaneously reporting a high sensitivity of pay-for-performance, executives could reap significant earnings without the burden of improved performance (and, more pertinent to our current discussion, without increasing risk). As will be shown below, following their exposure, many of the hidden pay practices became much less useful to managers, for reported sensitivity of pay-for-performance became more accurate and, ultimately, also incentivized managers to add on risk.

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99 Bebchuk & Fried, supra note 18, at 61 ("Because managers and directors might have to bear market penalties and social costs if they adopt pay arrangements that are perceived as egregious, 'outrage' costs and constraints place some limits on deviations from arm's-length contracting. To avoid outrage, compensation designers attempt to hide, obscure, and justify—in other words to 'camouflage'—the amount and form of executive pay.").

100 See, e.g., Bebchuk & Fried, supra note 18, at 111 ("Because of the camouflaging … not only manager's total compensation is higher than it appears from the compensation tables but also the fraction of total compensation that is decoupled from performance is larger than an examination of these tables would suggest.").
earlier, perhaps partially in response to this phenomenon, the fraction of option compensation out of total pay began to decline.\textsuperscript{101} However, this decline may have been either too slow or too late to overcome the increased tendency towards risk, at least for some firms.

The following four subsections highlight certain practices of hidden or obscure pay and benefits to corporate executives. These practices were prevalent for a long period of time but were ultimately constrained at the beginning of the twenty-first century. The rise and fall of these practices, which used to mitigate risk-taking, shed light on the distorted incentives that contributed to the 2008-2009 financial collapse.

(1) Executive Pensions

Executive pensions are a prominent instance of obscure pay that indirectly mitigates risk-taking as well. The benefits ingrained in executive pensions were concealed from the public eye until they attracted considerable attention at the beginning of this century.\textsuperscript{102} For many years, it had been difficult to discern the huge amounts of executive wealth hidden or "camouflaged" in this type of pay.\textsuperscript{103} The annual disclosure of summary compensation tables that included the dollar value of different forms of top executive compensation simply did not detail most pension benefits.\textsuperscript{104} As explained below, executive pensions operated as an extremely potent device for offsetting risk-taking incentives. But with the uncovering and subsequent criticism of the wealth channeled to these pension arrangements, this practice ceased to serve this purpose for managers to the same extent. And once their usage was in decline or was at least expected to decline, pensions could no longer effectively mitigate risk-taking. Here, too, an important managerial adaptive response to incentive compensation became partially unavailable, which was then followed by the predictable result of enhanced risk profiles. I begin below with an explanation of the virtues of executive pensions in offsetting risk and show that empirically they do, indeed, function as such. I then explain how managers were able to conceal these benefits for such a long time and reveal the unimaginable scope of benefits that remained hidden due to this practice. Finally, I describe how these benefits were exposed in the previous decade, leading ultimately, in

\textsuperscript{101} See supra Part II.
\textsuperscript{103} Bebchuk & Fried, supra note 18, at 96 ("[F]irms do not have to disclose the value transferred to executives through these channels in the same way that other forms of compensation—such as salary, bonus, and stock options—must be disclosed. Retirement benefits hence offer what might be called 'stealth compensation'."). As we shall see immediately below in the text, the current regulation of post-retirement benefits is far tighter and more transparent than it was at that time.
\textsuperscript{104} Bebchuk & Fried, supra note 18, at 99 ("An important camouflage benefit of SERPs [Supplemental Executive Retirement Plans] is that the annual increase in the present value of an executive's defined benefit plan—due to pay raises and the addition of another year of service—is largely hidden from view: firms are not required to include this increase in value in the compensation tables.").
2006, to the SEC’s improvement of its disclosure requirements for post-retirement benefits. Placing them in the spotlight meant that pensions could no longer operate as a hidden pay tactic. And given this exposure, the anticipated drop in the funneling of executive pay to pensions in the future reduced the risk-offsetting advantage of this mechanism.

The reason that executive pensions can serve to offset risk-taking incentives is twofold. First, executive pensions are typically pension plans with defined benefits but without defined contributions, unlike what is customary with the pensions of other employees.\(^\text{105}\) This means that the firm commits to some level of pension benefits for executives regardless of whether the assets it invests for that purpose actually yield the necessary returns.\(^\text{106}\) Executives thereby effectively become unsecured debt-holders of the company for a huge fraction of their personal wealth, which makes them especially vulnerable to corporate insolvency. Thus, managers have a compelling incentive to avoid extreme risk, which—at least in part—offsets the risk-inducing nature of option-based compensation and annual performance bonuses. Second, and perhaps even more importantly, irrespective of the vulnerability to corporate insolvency of the amounts accrued to executive pensions,\(^\text{107}\) pensions still act as a risk-offsetting device. So long as the manager maintains her position at the firm, she can expect future accumulation of pension benefits. These accrued pension benefits are typically keyed to the manager's tenure and annual salary, which do not fluctuate significantly with performance.\(^\text{108}\) The necessity to preserve this future flow of benefits curbs the manager’s risk appetite, since financial difficulties (even without actual insolvency) could result in the manager losing her position at the firm and, therefore, it's accompanying future pension benefits. Put differently, the perception of accumulation of future pension benefits prevents managers from rocking the boat.

From the empiric standpoint, studies show that, in practice, lucrative retirement benefits make executives more conservative and risk-averse. For example, one study showed that the disclosure of sizeable retirement benefits leads to an immediate rise in the firm’s bond prices, a decline in its share prices, and a decreased volatility in its securities prices.\(^\text{109}\) These findings reflect the market's appreciation that larger pension benefits act as a constraint on managers' appetite for risk.

Regardless, a loophole in the SEC executive compensation disclosure requirements allowed managers to obscure the lion’s share of their pension benefits. Since 1992, the SEC has required companies to summarize and quantify executive

\(^{105}\) Bebchuk & Fried, supra note 18, at 98.

\(^{106}\) In practice, many firms do not bother to commit any funds to executive post-retirement plans. Bebchuk & Fried, supra note 18, at 101 ("[F]irms do not bother funding SERP. Executives' retirement benefits are thus at greater risk of nonpayment than the benefits of ordinary workers.").

\(^{107}\) And indeed, some firms shield their executives from insolvency by using one of several techniques, such as outside insurance. See Bebchuk & Fried, supra note 18, at 101.

\(^{108}\) Bebchuk & Fried, supra note 18, at 98 ("SERP payments—like salary—are therefore largely decoupled from the executive's own performance.").

compensation in easy-to-understand summary compensation tables.\textsuperscript{110} Anything falling outside the scope of these tables rarely is exposed to public scrutiny and is unlikely to be covered by the media or included in executive compensation databases and academic research. Executive pension benefits are one such example. Before the SEC set new guidelines a few years ago, most pension benefits were not required to appear in the summary tables.\textsuperscript{111} Indeed, most firms did not even quantify these benefits, leaving readers of the annual reports with a formula that was hard to comprehend.\textsuperscript{112} It is therefore little wonder that only at the turn of the twenty-first century did research increasingly delve into executive pensions, particularly their scope.\textsuperscript{113} In their analyses, researchers criticized the prevalent usage of pensions as a method of compensation. Two prominent authors noted that "compensating executives with debt of the firm could neutralize some of the beneficial effects of option grants and lead executives to be too conservative."\textsuperscript{114} Ironically, however, this argument also works in the opposite direction: if managers are overly risk-preferring due to their incentive pay, then large pensions could beneficially restrain them, and any step that curtails the use of pensions as compensation could open up a risk-taking Pandora's box.

The pressure from both academic circles and the media led to the SEC ultimately closing the loophole.\textsuperscript{115} Until that point, managers were able to accumulate pension benefits of an absolutely enormous magnitude without fair disclosure. Among the many well-known examples was the pension of IBM CEO Louis Gerstner, who retired in 2001 after nine years with the guarantee of an annual pension of $1.14 million.\textsuperscript{116} The fair actuary value of this annuity was approximated at $18 million, which was more or less equal to the total in salary that he earned during his entire tenure at the firm.\textsuperscript{117} At the time, IBM was not required to include this huge benefit in its compensation tables, nor was it required to quantify it. One can only imagine the influence of this enormous portion of obscure inside debt on the CEO’s behavior, particularly its impact on his (lack of) appetite for risk. Another striking example is the 2001 retirement pension of Jack Welch, legendary CEO of General Electric, which amounted to approximately $10 million annually.\textsuperscript{118} Again, the amassing of this enormous fortune throughout his years

\textsuperscript{110} This is an important part of the proxy rules, Executive Compensation Disclosure, Securities Act Release No. 6962 (Oct. 16, 1992).
\textsuperscript{111} Bebchuk & Fried, supra note 18, at 100.
\textsuperscript{112} Bebchuk & Fried, supra note 18, at 100.
\textsuperscript{113} See, e.g., Bebchuk & Fried, supra note 18; Bebchuk & Jackson, supra note 102; Schultz & Francis, supra note 102; Johnston, supra note 102.
\textsuperscript{114} Bebchuk & Jackson, supra note 102, at 830.
\textsuperscript{115} For a partial summary of media criticism of executive pensions at the beginning of the twenty-first century, see Bebchuk & Jackson, supra note 102, at 825 nn. 4, 5.
\textsuperscript{117} Bebchuk & Fried, supra note 18, at 100.
\textsuperscript{118} See PAUL HODGSON, GOLDEN PARACHUTES AND CUSHIONED LANDINGS—TERMINEATION PAYMENTS & POLICY IN THE S&P 500, at 13 (The Corporate Library Feb. 2003), available at http://www.thecorporatelibrary.com/reports.php?reportid=150&keyword=golden%20parachutes. See also MACEY, supra note 9, at 9 (discussing the post-retirement benefits that were disclosed during Welsh's divorce trial).
of service was never included in the compensation tables, nor did GE ever place a dollar value on it.\textsuperscript{119}

One study, which, due to the opacity of executive retirement benefits, had to rely on certain assumptions and estimates, revealed an amazing picture of hidden benefits.\textsuperscript{120} From a sample of CEOs of S&P 500 firms who retired during 2003-2004, the study estimated that the average present value of the pensions granted was no less than $15 million,\textsuperscript{121} almost three times the CEOs’ total earnings in salary during their stints as CEOs.\textsuperscript{122} As noted, there was absolutely no mention of these pension benefits in the annual summary disclosures of executive compensation, leading to a complete distortion in what was reported as the fraction of incentive-based compensation. For the sample in this particular study, including pension benefits as part of the reported salary would have increased the reported fraction of salary-type pay out of total compensation from 16.2% to 38.9%.\textsuperscript{123} Evidently, managers covertly built a huge apparatus that reduced their incentive to add on risk. The reported fraction of incentive pay (including option-based compensation) out of total pay was highly exaggerated.

This risk-disincentive mechanism, however, is no longer available to the same extent. Today, most, if not all, pension benefits are fully quantified and reflected in the summary compensation tables. An amendment to the securities regulation, drafted in 2005 and implemented in 2006, put an end to the possibility of easily camouflaging executive pensions and post-retirement benefits.\textsuperscript{124} And although the new regulation applies only to disclosures from the end of 2006, managers could feel the tension building up around this matter long before, when the academia and press picked up on the subject.\textsuperscript{125} And since the perception of future accumulation of pension is an important

\textsuperscript{119} Yet another illustrative example is the 2004 retirement package of Franklin Raines, Fannie Mae CEO, which included pension benefits estimated at $24,000,000. See Lucian A. Bebchuk & Jesse M. Fried, Executive Compensation at Fannie Mae: A Case Study of Perverse Incentives, Nonperformance Pay, and Camouflage, 30 J. CORP. L. 807 (2005) (a detailed analysis of Raines’ pension and post-retirement benefits).

\textsuperscript{120} Bebchuk & Jackson, supra note 102.

\textsuperscript{121} Id. at 843 tbl. 5.

\textsuperscript{122} Id. at 845 tbl. 6. Moreover, the combined value of these pensions amounted to 44% of the average total compensation reported for them over the course of their entire careers as CEOs. Id. at 847 tbl. 7.

\textsuperscript{123} Id. at 850 tbl. 8.


\textsuperscript{125} A turning point in the outing of executive pensions in the press was the story of Richard Grasso, Chairman of the NYSE. Although not an executive at a public corporation, Grasso’s case brought executive pensions into the limelight, when, on August 27, 2003, it was revealed that he had received a deferred compensation pay package worth almost $140 million. Ben White, NYSE Ousts Grasso as Chairman, WASH. POST, Sept. 18, 2003, at A01, available at http://www.washingtonpost.com/ac2/wp-dyn/A26875-
risk-offsetting device, the anticipated exposure and, in turn, anticipated decline in the usage of this device impaired its risk-mitigating function. When hidden pay practices are expected to be exposed, they can no longer be trusted by managers and therefore also cease to guide their behavior. Thus, the uncovering of executive pensions combined with the other factors discussed in this paper augment the inherent risk factor of incentive pay.  

(2) Executive Loans

The benefits stemming from executive loans are another prominent example of an adaptive device that offsets the forces of incentive pay. Executive loans flourished alongside the rise in incentive pay and then disappeared almost instantaneously when the Sarbanes-Oxley legislation broadly prohibited them in 2002. Accordingly, when executive loans and their attached benefits became unavailable, their ability to repress risk-taking incentives disappeared as well.

Not too long before the passage of the prohibition on executive loans, a substantial fraction of Corporate America had granted hefty loans to top executives. It emerged from one study that at the end of the twentieth century, no less than 30% of the 1500 largest corporations had given loans to their executives. The average corporation's insider indebtedness stood at $11 million, with the size of some loans quite astounding. One good example is the $62 million loan given to Dennis Kozlowski, the now notorious CEO of Tyco, to cover "relocation costs."

The full extent of the benefits built into these loans is often partially hidden from the public eye. Corporations must publicly disclose such loans and their terms but, as discussed earlier, a benefit is far less salient if it is not quantified and recorded in the summary compensation tables. Aside from their actual dollar value, a significant benefit stemming from executive loans is their lenient terms. In one study, almost all the executive loans examined were either unsecured or partially secured, with about 50% interest-free and the rest bearing below-market interest. Disclosure of the benefit in the compensation tables was required only when the interest rate was below "market

2003Sep17. For academic work highlighting executive pensions and the related disclosure failure, see Bebchuk & Fried, supra note 18; Bebchuk & Jackson, supra note 102.


127 PAUL HODGSON, MY BIG FAT CORPORATE LOAN 1 (The Corporate Library 2002).

128 Id.


130 See infra note 110 and accompanying text.

131 Bebchuk & Fried, supra note 18, at 112.

132 Bebchuk & Fried, supra note 18, at 115.
rate,” a term vague enough to allow firms to hide much of the benefit. In one infamous example, WorldCom, just prior to its collapse in 2002, did not record any of the interest benefits granted to its CEO, Bernard Ebbers, on the $165 million he received in cheap loans from the company.

The fact that their benefits were partially obscured made executive loans a lucrative compensation vehicle for many managers. At the same time, in being detached from firm performance, the prospects of these benefits also served to counterbalance risk-taking incentives, for so long as the manager held her position, she could secure these future benefits. If taking more risk could cause the manager to lose her position or perhaps even lead the firm into bankruptcy, it would also result in her loss of these lucrative benefits. It could be argued, however, that not all executive loans were actually untied to firm performance. In theory, many loans were granted to fund the purchase of firm shares, which, in turn, should have presumably provided incentive to improve firm performance. However, research shows that, in practice, managers overcame these additional incentives by simultaneously selling previously held shares. It was found that, on average, loans granted to purchase shares had actually increased managers’ net holdings in their firm by only 8% of the total amount of shares that could have been purchased with the loan. Moreover, executive loans were often forgiven by companies, pointing to yet another huge benefit managers reaped from this arrangement. As one study showed, during the period of 1996 to 2000, 12.6% of executive loans were forgiven and, in an additional 10.2% of the cases, the accrued interest was forgiven.

But in 2002 the party ended almost instantly and with almost no prior warning, when a straightforward prohibition on executive loans was included as part of the Sarbanes-Oxley legislation. Thus, a major source of profit that was only partially disclosed to the public and mostly decoupled from performance simply disappeared. Similar to the other developments discussed in this paper, the elimination of this adaptive

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134 This is in stark contrast to the IRS policy that defines market rates quite clearly for the purpose of quantifying the taxable benefits accruing to employees who receive loans from the firm. See Bebchuk & Fried, supra note 18, at 115.

135 See the “Certain Relationships and Related Transactions” section of the WorldCom Proxy Statement of 2002 (Form DEF 14A), at 14, available at http://www.sec.gov/Archives/edgar/data/723527/000091205702015985/a2077247zdef14a.txt (“In addition to the guaranty arrangements, during 2000 we agreed to loan up to $100 million to Mr. Ebbers. Since January 1, 2001, we have agreed to loan him up to an additional $65 million, for a total maximum principal amount of $165 million. These loans bear interest at floating rates equal to that under certain of our credit facilities . . .”).

136 Kathleen M. Kahle & Kuldeep Shastri, Executive Loans, 39 J. FIN. & QUANTITATIVE ANALYSIS 791, 810 (2004) (“A loan that enables a manager to buy 100 shares of stock results in only an eight-share increase in ownership.”).

137 Id. at 798.

device invigorated the force of options and other types of incentive pay in fostering risk-taking on the part of managers. Moreover, the risk-incentives for managers were further bolstered by the structure of the new regulation. Section 402 of the Sarbanes-Oxley Act included a grandfather clause that exempted existing loans from the prohibition. In a sense, this arrangement only intensified the tendency of managers to add on risk, for they could no longer hope for new loans with benefits stemming from their stint and unlinked to firm performance. However, there were huge loans to be repaid, and since executive incentive compensation usually includes equity, managers were driven to increase their company's risk profile to obtain large gains on their equity holdings. Just as with any other type of leverage, the creditor—in this case, the company—bore much of the cost of this additional risk, whereas the gains accrued mostly to the managers.

(3) IPO Spinning and Benefits Derived from Third Parties

Up to this point, our discussion has concentrated on the benefits managers derive from their own firms. When such benefits are insensitive to firm performance, they reduce managers’ incentive to add on risk, since the materialization of the risk may interfere with the flow of their benefits. The firm, however, may not be the only source of benefits and payments to managers. Third parties can apparently also be a significant source of considerable wealth to managers by virtue of their positions as firm executives. Since these particular benefits are also generally unlinked to performance, managers are required only to hold on to their positions in order to guarantee the benefits from the third parties. Thus, these benefits perform the same familiar function of mitigating risk-taking as do pensions and executive loans, negating the risk-inducing forces of incentive compensation since risk-taking could impede the flow of the benefits.

Managers’ benefits from third parties reached the public spotlight and were eventually denounced by the media with the revelation of the phenomenon dubbed "IPO spinning.” Spinning is the derogatory term for firms’ improper practice of allocating shares of "hot" initial public offerings to executives at other firms in order to draw the business of the latter’s firm. The most prestigious investment banking firms and many

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139 The new prohibition on executive loans also brought to an end the practice of granting managers so-called "split-dollar" life insurance policies. This was a practice that, similar to other types of executive loans, had a mitigating effect on risk-taking. Under a split-dollar life insurance arrangement, the firm paid the premium on the manager’s life insurance policy. These premium payments were considered a loan to the manager, to be repaid only when she collected her insurance payout. See Bebchuk & Fried, supra note 18, at 131–32.

140 Sarbanes-Oxley Act § 402(a), Pub. L. No. 107-204, 2002 U.S.C.C.A.N. (116 Stat.) at [?] (codified at 15 U.S.C. § [?]) (“An extension of credit maintained by the issuer on the date of enactment of this subsection shall not be subject to the provisions of this subsection, provided that there is no material modification to any term of any such extension of credit or any renewal of any such extension of credit on or after that date of enactment.”). See also William Baue, Sarbanes-Oxley Fails to Kill Corporate Insider Loans, Some of Which Pay Posthumously, Jan. 21, 2004, http://www.socialfunds.com/news/article.cgi/1319.html.

141 See, e.g., Sean J. Griffith, Spinning and Underpricing: A Legal and Economic Analysis of the Preferential Allocation of Shares in Initial Public Offerings, 69 BROOK. L. REV. 583 (2004) (discussing spinning and the incentives of the different actors in the scheme); THERESE H. MAYNARD, SPINNING IN A
high-profile corporations were at one time heavily engaged in this practice. And although this practice was arguably legal until 2003, the media presented it as nothing less than pure bribery. In perhaps the most famous instance of spinning, allegations were made that eBay executives had been offered by Goldman Sachs shares in numerous promising startups represented by Goldman and then subsequently sold the shares—in some cases, within a matter of hours after the initial public offering—at substantial profit. A critical point was that Goldman had served as lead underwriter for eBay in its 1998 IPO and 1999 secondary offering, as well as serving as eBay’s financial advisor in its 2001 PayPal acquisition. While no clear causal connection can be drawn between the events, an impression of harsh wrongdoing nevertheless emerged. Eventually, an eBay shareholders suit, alleging usurpation of a corporate opportunity, was settled, with eBay’s three top executives compensating shareholders by paying more than $3 million to the firm. Another case that drew considerable public attention involved Salomon Smith Barney and Bernie Ebbers, then-CEO of WorldCom. In 1997, Salomon (then Salomon Brothers) offered Ebbers the opportunity to buy more than 200,000 shares in the IPO of Qwest, a sure bet at the time. Ebbers bought the shares, which went up 27% on the first day of trading alone, and within three days, he started selling the shares, ultimately making a two-million-dollar profit. Concurrently, between 1996 and 2001, Salomon helped Ebbers make $11 million in profits by flipping IPO shares. Moreover and significantly, during the same period, WorldCom paid Salomon $140 million in underwriting fees and an additional $76 million in M&A consulting fees.

These instances of spinning, which were practically unknown to the market prior to 2003, were far from isolated occurrences. The illicit practice of IPO spinning became a major thread in a much broader investigation directed against Wall Street investment bankers for their aggressive tactics. This high-profile investigation led to the famous 2003 "global settlement" that followed enforcement actions against ten of the nation’s top investment banks. The investigation and settlement were headed by the


144 Id.


146 See Surowiecki, supra note 142.

147 Id.


149 See Press Release, SEC. NYAG, NASAA, NASD, NYSE, For Immediate Release 2003-54, Ten of Nation’s Top Investment Firms Settle Enforcement Actions Involving Conflicts of Interest Between
SEC, NYSE, NASD, and other regulators, with the outcome of an unprecedented payment of $875 million in fines and disgorgement of profits by these firms.\textsuperscript{150} Among other things, all ten firms committed to ending the spinning practice in order to "promote fairness in the allocation of IPO shares and prevent firms from using these shares to attract investment banking business."\textsuperscript{151}

To be sure, these detrimental practices deserve condemnation, but their mitigating effect on risk-taking must not be overlooked either. When managers derive benefits from their position at the firm, whether from an internal or external source, they must manage the firm conservatively to assure the flow of those benefits. The sweeping public revelation of third-party benefits garnered by managers along with the swift regulatory and shareholder action that was taken to restrict them changed the equation dramatically. Spinning aside, since 2003, managers need to be far more sensitive to public outrage over executive benefits deriving from a firm’s service-provider or supplier. They can expect much less tolerance of such practices. Out-and-out bribery has always been denounced, whereas the question of the legitimacy of benefits like spinning was somewhat cloudier. This was no longer the case following 2003, when they ceased to be regarded as acceptable. And as in the case of the other developments discussed in this paper, making these benefits unavailable to managers further bolstered the risk-taking incentives built into stock options and annual bonuses. Simply put, managers had less to lose by putting their firms in the danger zone.

(4) Improved Transparency

Most types of non-transparent pay are decoupled from firm performance. This is no coincidence. These practices, as this paper suggests, are actually adaptive responses to incentive pay, designed to enrich managers without any need to enhance firm performance or risk levels. Improving transparency, however, discourages the use of hidden pay practices and thereby reignites the risk-promoting potential of incentive pay. The SEC’s disclosure regulation of executive pensions discussed earlier was but one example of the effect of improving transparency. However, in the twenty-first century, managers would have soon learnt that transparency of executive pay and benefits was about to increase far beyond the limited context of post-retirement benefits.

Our discussion in this Part of this paper thus far has presented a few types of executive benefits, which were by and large detached from firm performance. These benefits and their anticipated flow therefore served to restrain executive risk-taking. A common feature of these benefits was the fact that they were, to a large extent, obscured from public scrutiny. The benefits built into pensions, executive loans, and spinning were all fairly illusive and covert. This was an important aspect of these benefits, since at the time, the market lauded pay-for-performance. Hidden benefits are not included in firms’ summary compensation tables (and spinning, moreover, was never even noted in disclosure reports) and, thus, avoid any criticism for being salary-like benefits that are not

\textsuperscript{150} This includes $487.5 million in penalties and $387.5 million in disgorgement of profits for illicit practices that included spinning. \textit{Id.}

\textsuperscript{151} \textit{Id.}
tied to performance. Put differently, hiding the benefits we discussed above enabled managers to disclose an artificially elevated fraction of executive pay that was supposedly tied to firm performance. The implication is that a lax disclosure environment will promote the usage of pay types that are unrelated to performance without exposing them as such, which then offsets risk-taking incentives.

Each of the types of pay and benefits discussed above were ultimately addressed by a specific regulatory measure, but it is also important to note the general regulatory response to the phenomenon of hidden pay as a whole. The uncovering of the different practices eventually led regulators to impose requirements limiting the scope of any hidden or opaque pay mechanisms. This new regulation included measures aimed especially at exposing hidden spots in corporate pay practices. Moreover, it became far harder to give managers any type of compensation, other than salaries, that is decoupled from performance. Indirectly, this also meant that incentive pay became much more effective. And pushing managers harder ultimately leads to increased risk profiles.

The regulation broadening the disclosure requirements for executive pay and benefits came into effect only in 2006. This was the first substantial revamp of managerial compensation disclosure since the SEC’s major regulatory revision of pay disclosure in 1992. At the heart of the expanded regulation was the requirement for a “Compensation Discussion and Analysis” (CD&A) section in firms’ proxy statements. This section details extensively the material factors underlying the firm’s compensation policies, including the objectives of the compensation program, why each element of pay was specifically opted for, and how each element is consistent with the overall objectives of the remuneration scheme. The CD&A must also address issues of timing and pricing of stock options, which connects to our earlier discussion of managers’ ability to time their grants. The new regulation also instituted expanded disclosure of related party transactions, improved the transparency of the compensation tables (including a requirement for an annual “all in” compensation number, which provides the current value of all forms of compensation), and closed such loopholes as the non-disclosure of pension benefits.

This tighter disclosure environment has made it much harder for managers to obtain hidden and obscure pay. And if, indeed, this type of pay functions as an offsetting response to incentive pay, then the outcome of the regulation must be enhanced risk-taking by managers. Furthermore, although the regulation itself was passed only in 2006, managers could feel its heat a few years beforehand. The exposure in academic studies, followed by public outrage, about hidden managerial benefits such as executive loans, pensions, spinning, spring loading, and backdating created an atmosphere that fostered the drafting of the tighter disclosure regulation. In fact, the 2006 regulation and,

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153 Id. § B at 27-45.
154 Id. § A at 18-27.
155 See the previous discussion of backdating, spring loading, and bullet-dodging at supra Part III.A.1.
156 Supra note 152, § V at 146-91.
157 Id. § C.1.a. at 50-53 (“Total Compensation Column”).
158 Id. § C.5., at 105-16.
159 See the previous discussions of these mechanisms at infra Parts II.A.1, III.B.1-3.
particularly, the CD&A requirement came close on the heels of an academic proposal that was released in 2004.\textsuperscript{160}

Managers, therefore, must have already sensed the tension mounting in the years leading up to the new regulation. The anticipation of enhanced disclosure requirements should have led them to foresee that they would face diminished availability of hidden and obscure pay in the future. And given this expectation of less hidden pay, managers had less reason to restrain the risk-taking that incentive pay fosters. Simply put, they had less to lose. Thus, both the regulation and its very anticipation bolstered the forces of option compensation, annual bonuses, and the like. Given that the 2008-2009 crisis was in some way related to unbalanced risk, the discussion above uncovers yet another reason for this unfortunate situation.

Part IV: Lessons for the Future and Concluding Remarks

Financial markets rest on delicate and intricate forces. Any regulation, even when most justified, runs the risk of interfering with these forces, which may, in turn, trigger a financial crisis. At the beginning of the twenty-first century, a major market failure led us to believe that "[a]ll in all, the more logical inference to draw from the 'accounting irregularity' scandals of 2001 and 2002 is that erosion occurred during the 1990s in the quality of financial reporting."\textsuperscript{161} Market deviations allowed managers to reap huge gains at great cost to society, until harsh regulation addressed what was regarded as an intolerable situation.

This paper explains that lax accounting and other irregularities such as backdating, spinning, and stealth compensation were all part of a complex reaction to the prevalent trends in executive compensation. It is clear how these practices inflated managers' remuneration, but it is also important to grasp their impact on incentives to enhance risk. All things equal, managers prefer hefty guaranteed pay packages that do not require them to bear excessive risk. Annual performance bonuses and stock options, however, run counter to managers' natural tendencies and stoke their appetite for risk. The adaptive responses discussed in this paper allowed managers to enjoy the best of both worlds. Their pay packages were inflated, but at the same time, they did not have to take on much risk in order to reap hefty personal gains. The accounting and other irregularities served as a mechanism for constraining excessive risk-taking. And while the market was hailing the rising levels of incentive compensation, managers were working harder to diffuse its force by devising further adaptive responses.

In the wake of the Enron crisis, many of these adaptive responses were harnessed or became completely unavailable due to the swift regulatory action. This, in turn, unleashed the risk-inducing nature of the prevalent incentive pay schemes.\textsuperscript{162} Evidently,\textsuperscript{160} Gordon, \textit{supra} note 124, at 677 ("I argue that the SEC should require proxy disclosure of a ‘Compensation Discussion and Analysis’ statement (CD&A) signed by the members of the compensation committee … . This process of ‘ownership,’ reputation-staking, and publicity will strengthen the compensation committee … and will elicit both shareholder and public responses that become part of the social construction of value that is necessarily part of the compensation bargain.").
\textsuperscript{161} Coffee, \textit{supra} note 48, at 282.
\textsuperscript{162} Only after the crisis did the regulator understand and react to these unleashed powers. \textit{See} SEC Proxy Disclosure Enhancement, Release No. 33-9089, \textit{available at
the financial sector, which enjoys significant flexibility in its operation, led the way with the immense risks taken by managers. These risks were so fierce that they almost caused a full-blown meltdown of the entire U.S. economy. Before crisis emerged, however, the gradual decline in the popularity of stock-option compensation could be indication that the market had started to adapt to the new reality of intensified risk inducement. Yet, at least in the financial sector, which was able to shift its risk profile rapidly, this adaptation in pay practices came too late.

When crisis arose, people pointed an accusing finger at executive pay practices. In fact, pay schemes should share the blame with the regulation that unexpectedly intensified the risk-taking fostered by incentive pay. But the lesson to be drawn from this discussion cannot be that there is a need for an absolute ban on all regulation. Rather, the regulator must acknowledge that plugging one hole in a complex system may cause another to leak, which could lead to an even harsher reality. Most importantly, the regulator must prepare the market for the new regulatory environment and allow it to adapt to the change.

Emergency regulation that surprises the market in timing and scope is especially likely to cause unexpected harm by tilting the market. Gradual and suspended regulation may be a far better option. The drafters of the recent Dodd-Frank Act, the major financial legislation that followed the crisis, seem to have understood at least part of this lesson.

A central part of this legislation is the so-called Volcker Rule. Generally speaking, the Rule bans U.S. banks from trading with their own capital and running hedge funds which clearly represents a major transformation to U.S. financial regulation. However, this regulation does not have immediate force. The ban on new activities will become effective in two years, and existing operations must cease only after four years, with a possible extension to seven years. This is a gradual and suspended arrangement. Whatever the unexpected consequences of this regulation will be, the market at least has plenty of time to adapt to the change. That being said, we can still be sure that these new layers of regulation could create another challenge that is currently difficult to foresee.

http://www.sec.gov/rules/final/2009/33-9089.pdf (“[t]o the extent that risks arising from a company’s compensation policies and practices for employees are reasonably likely to have a material adverse effect on the company, discussion of the company’s compensation policies or practices as they relate to risk management and risk-taking incentives that can affect the company’s risk and management of that risk”).

See, for example, among many others, Geithner, supra note 1; Bhagat & Romano, supra note 2; Bebchuk & Spamann, supra note 2.


165 Id. § 619 (“Prohibitions on proprietary trading and certain relationships with hedge funds and private equity funds”) (adding new §§ 13 and 13a to the Bank Holding Company Act of 1956 (12 U.S.C. 1841 et seq.).


166 See Dodd-Frank Wall Street Reform and Consumer Protection Act § 619, amending Bank Holding Company Act of 1956 § 13(c).