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CEO Pay

. . . and how to fix it*

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ABSTRACT

Currently, we are in the midst of a reexamination of chief executive officer (CEO) compensation that has more than the usual amount of energy and substance. While much of the fury over CEO pay has been aimed at executives associated with accounting scandals and collapses in the prices of their company's shares, the controversies over GE CEO Jack Welch and NYSE CEO Richard Grasso signal a watershed. In their cases the competence and performance of both men were unquestioned: the issue seems to be the perception that they received "too much" and that there was inadequate disclosure.

We provide, history, analysis and over three-dozen recommendations for reforming the system surrounding executive compensation.

Section I introduces a conceptual framework for analyzing compensation and incentives in organizations. We then analyze the agency problems between managers and shareholders and between board members and shareholders, and discuss how well designed pay packages can mitigate the former while well designed corporate governance policies and processes can mitigate the latter. We say "mitigate" because no solutions will eliminate these agency problems completely. Since bad governance can easily lead to value destroying pay practices our discussion includes analyses of corporate governance as well as pay design. Because optimal compensation policies cannot be designed and managed without consideration of the powerful relations and interactions between the financial markets and the firm, its top-level executives and the board, we devote significant space to these factors.

Section II offers a brief history of executive compensation from 1970 to the present. Section III examines and explains the forces behind the US-led escalation in stock options. We argue that boards and managers falsely perceive stock options to be inexpensive because of accounting and cash-flow considerations and, as a result, too many options have been awarded to too many people.

Section IV defines and discusses the *agency costs of overvalued equity* as the source of recent corporate scandals. Agency problems associated with overvalued equity are aggravated when managers have large holdings of stock or options. Because neither the market for corporate control or the usual incentive compensation systems can solve the agency problems of overvalued equity, they must be resolved by corporate governance systems. And few governance systems were strong enough to solve the problems. As the overvalued equity problem illustrates, while compensation can be a solution to agency problems, it can also be a source of agency problems.

Section V discusses several widespread problems with pay processes and practices, and suggests changes in both corporate governance and pay design to mitigate such problems: including problems with the appointment and pay-setting process, problems with equity-based pay plans, and problems with the design of traditional bonus plans. We show how traditional plans encourage managers to ignore the cost of capital, manage earnings in ways that destroy value, and take actions to deceive investors and capital markets.

Section VI defines and analyzes a new concept: what we call the *Strategic Value Accountability* issue. This is the accountability for making the link between strategy formulation and choice and the value consequences of those choices — basically the link between internal managers and external capital markets. The critical importance of this accountability, its assignment, and its implications for performance measurement and compensation have long been unrecognized and therefore ignored in most organizations.

Section VII analyzes the complex relationships between managers, analysts, and the capital market, the incentives firms have to manage earnings to meet or beat analyst forecasts, and shows how managers playing the earnings-management game systematically erode the integrity of their organization and destroy organizational value. We highlight the puzzling equilibrium in this market that seems to suggest collusion between analysts and managers at the expense of investors — an area that is ripe for further research.

Executive Compensation

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Introduction and Summary

Few issues in the history of the modern corporation have attracted the international attention garnered by what the largest corporations pay their top executives. Fueled by disclosure requirements and human envy, analyzing and criticizing executive compensation has been a popular sport among business pundits for decades. Currently, however, we are in the midst of a reexamination of chief executive officer (CEO) compensation that has more than the usual amount of energy and more than the usual amount of substance. In their 1990 study of executive compensation Jensen and Murphy pointed out that CEO pay had not risen in real terms from the 1930s:

> Despite the headlines, top executives are not receiving record salaries and bonuses. Salaries and bonuses have increased over the last 15 years, but CEO pay levels are just now catching up to where they were 50 years ago. During the period 1934 through 1938, for example, the average salary and bonus for CEOs of leading companies on the New York Stock Exchange was $882,000 (in 1988 dollars). For the period 1982 through 1988, the average salary and bonus for CEOs of comparable companies was $843,000.[1]

As we now know, things have changed dramatically since these words were written 14 years ago, and the result has been much controversy. Over the past two years, much of the fury over CEO pay has been aimed at executives associated with accounting scandals and collapses in the prices of their company's shares. However, two landmark events may prove to be even more important in signaling changing compensation policies, practices, and processes. First, in September 2002 the reputation of legendary General Electric CEO Jack Welch was shattered by revelations of lavish personal retirement benefits that were allegedly not disclosed to the GE Board or GE shareholders. Second, in September 2003 Richard Grasso was forced to resign as CEO of the New York Stock Exchange after revelations that he was to receive total accrued retirement and savings benefits of nearly $190 million. We believe these events signify a watershed because the competence and performance of both men were unquestioned: the issue seems to be the perception that they received "too much" and that there was inadequate disclosure. Undoubtedly the reactions have been affected by the contemporaneous failures in organizations other than GE and the NYSE; including widespread revelation of failed corporate governance systems, corporate misdeeds, manipulated financial reporting, fraud, bankruptcy and liquidation that has occurred contemporaneously with the loss of trillions of dollars in equity values associated with declines in worldwide stock prices.

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[1] Jensen and Murphy, "CEO Incentives-It's Not How Much You Pay, But How",.

Our purpose here is to review where we've been in the last several decades in executive compensation, how we've gotten to where we are now, and to assess how we might re-think executive compensation to provide a solid foundation on which to formulate current and future compensation policy. We focus on top-executive compensation which is but a part of the overall labor market. Because similar issues pertain to employees who are not at the top of the corporate hierarchy, the thinking embodied in this report will be useful in considering compensation policy for these employees as well.

In analyzing trends and practices and reaching conclusions, we draw on the extensive and growing academic literature on executive compensation in accounting, economics, finance, and organizational behavior.[2] In addition, we note the existence of recent exchange listing guidelines and reports from industry groups, especially reports from the Conference Board (2002), the Business Roundtable (2003), and the National Association of Corporate Directors (2003).[3] These reports provide thorough analyses of the role of compensation committees, and also offer thoughtful recommendations on improving practices, most (but not all) of which we endorse and many of which mirror our own recommendations discussed below. The existence of these reports has relieved us of the obligation to describe the many roles, functions, processes and obligations of compensation committees in detail, but instead allows us to focus our effort here primarily on rethinking the conceptual foundations of executive compensation. While our primary focus is compensation, we also discuss where necessary the major forces influencing the pay-setting process that are critical to achieving well-designed pay systems, including corporate governance systems, compensation consultants, external financial markets, the managerial labor market, and the government.

We acknowledge that much of our focus is on compensation practices in the US. This is due partly to data limitations and disclosure policies in other countries, but also because (for better or worse) the US is the undisputed trendsetter in executive compensation practices.

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[2] See the survey article by Murphy, 1999, "Executive Compensation", in ed. Ashenfelter and Card, *Handbook of Labor Economics,* 3, North Holland for an overview of the academic literature, including cites to nearly 200 academic articles related to executive incentives, compensation, and turnover. Reprints of 45 of the most influential academic articles on executive pay are available in Hallock and Murphy, 1999, *The Economics of Executive Compensation* V. I & II, Elgar Reference Collection, International Library of Critical Writings in Economics, Cheltenham, UK: Edward Elgar Publishing.

[3] In particular, we refer the reader to the Conference Board's "Commission on Public Trust and Private Enterprise" published in September 2002; the Business Roundtable's "Executive Compensation: Principles and Commentary" published in November 2003; and the NACD's "Blue Ribbon Commission on Executive Compensation and the Role of the Compensation Committee," published in December 2003.

Interspersed throughout this report are recommendations and guidelines for improving both the governance and design of executive compensation policies, processes, and practices. These recommendations, summarized at the end of this Introduction, are designated as R-1, R-2, etc. Some of our recommendations are specific prescriptions for designing efficient compensation plans. Others are better thought of as "guiding principles" that can be applied broadly across and within organizations. We have not attempted to design an optimal compensation policy since such a policy must be specific to each organization taking into account its idiosyncrasies and the specific competitive and organizational strategies, culture and the laws and regulatory conditions it must deal with.

We alert the reader to the fact that an appropriate compensation policy for a particular organization must take account of the tradeoffs that are inevitably involved to achieve balance and fit with their own organization and people. There is no cookbook solution for compensation in all organizations. And while a well-constructed compensation program will require a thorough understanding of the general issues and guidelines offered here, we emphasize up front that with compensation, it is the details that matter. Well-designed general principles can be thoroughly undone by the details of implementation. Finally, while simplicity in compensation programs is important because they must be understandable to the people they cover; simplicity can be a danger because such programs can easily have dramatic unintended consequences as evidenced by the recent experiences of many organizations.

Overview

Section I introduces a conceptual framework for analyzing compensation and incentives in organizations. We begin by defining (and justifying) the objective of the firm as maximizing long-run total firm value. Next, we define the purpose of compensation as attracting, retaining, and motivating executives (and other employees). We then lay out the three critical dimensions of compensation — the expected total level of compensation, the composition of the compensation package, and the relation between pay and performance. Finally, we analyze the agency problems between managers and shareholders and between board members and shareholders, and discuss how well-designed pay packages can mitigate the former while well-designed corporate governance policies and processes can mitigate the latter. We say "mitigate" because there are no solutions that will eliminate these agency problems completely. We conclude that corporate governance and compensation policies are highly interrelated: bad governance can easily lead to value-destroying pay practices, and our discussion of compensation problems and their solutions will therefore include analyses of corporate

governance as well as pay design. Similarly, because optimal compensation policies cannot be designed and managed without clear understanding and consideration of the powerful relations and interactions between the financial markets and the firm, its top-level executives and the board, we devote significant space to these factors.

Section II offers a brief history of executive remuneration from 1970 to the present. We show that fundamental changes in the global economy have led to dramatic increases in US CEO pay from 1970 to 2000, driven by an explosion in grants of share options. Total compensation has fallen substantially since 2000, as companies have granted fewer options (and replaced options with lower quantities of restricted stock). In addition, we document that CEO cash compensation has increased steadily throughout the last three decades, and that CEO openings in the US are increasingly filled through external hires rather than through internal promotions.

Section III examines and explains the forces behind the US-led escalation (and recent fall) in stock options. The increased emphasis on equity-based incentives may well have been initiated by an increased focus on shareholder value creation beginning in the mid-1980s. However, this emphasis does not explain why grant-date values of options have varied systematically with movements in US stock markets, and why option grants have increasingly been extended to lower levels in the corporate hierarchy. We argue that boards and managers falsely perceive stock options to be inexpensive because of accounting and cash-flow considerations and, as a result, too many options have been awarded to too many people.

Section IV defines and discusses the *agency costs of overvalued equity* as the source of recent corporate scandals. Managers in overvalued firms eventually realize they cannot generate the performance necessary to support their sky-high stock price. So, they use the firm's overvalued equity as currency to make acquisitions to satisfy growth expectations. They use access to cheap capital to engage in excessive internal spending. They make increasingly aggressive accounting and operating decisions that shift future revenues to the present and current expenses to the future. Eventually when these fail to resolve the issues, managers — under incredible pressure to preserve high stock prices —turn to further manipulation and even fraud. The result of all these actions is to destroy part of the core value of the firm.

The agency problems associated with overvalued equity are aggravated when managers have large holdings of stock or options that will expire worthless if the stock price is allowed to fall to its true value. Since equity-based pay makes the agency problem of overvalued equity worse not better, and since the market for corporate control cannot solve it, the agency problems of overvalued equity must be resolved by corporate governance systems. Few governance

systems were strong enough to solve the problems, and the results are continuing to show in the worldwide business press and in the courts.

As the overvalued equity problem illustrates, while compensation can be a solution to agency problems, it can also be a source of agency problems. Section V discusses several widespread problems with pay processes and practices, and suggests changes in both corporate governance and pay design to mitigate such problems. In particular, we discuss problems with the appointment and pay-setting process, problems with equity-based pay plans, and problems with the design of traditional bonus plans. We show how traditional plans encourage managers to ignore the cost of capital, manage earnings in ways that destroy value, and take actions to deceive investors and capital markets.

Section VI begins an analysis of a subtle but important issue in governance and strategy. In it we define and analyze a new concept: what we call the Strategic Value Accountability issue. This is the accountability for making the link between strategy formulation, and choice, and the value consequences of those choices — basically the link between internal managers and external capital markets. The critical importance of this accountability, its assignment, and its implications for performance measurement and compensation has long been unrecognized and therefore ignored in most organizations.

The capital markets and the internal managerial organization speak very different languages and the result is that the two groups virtually ignore each other. The responsibility for managing the tension between the internal management of an organization and the capital markets that speak the language of financial results and value creation lies with the CEO and the Board.

In every organization it is necessary that someone or some entity take accountability for making the link between strategy formulation and choice and the value consequences of those choices. The individual or entity that accepts this Strategic Value Accountability is vested with the obligation to bridge the gap between strategic choices and the predicted value consequences of those choices. Organizations systematically try to avoid having to deal with the difficult linkages between strategic and operational choices and their value consequences as reflected in the capital market reaction. This is a critical and common mistake and one that organizations must struggle to correct. The value consequences of organizational choices are difficult to predict, but such predictions must be made. If they are made accurately both the organization and society are much better off. Solving this issue also goes a long way to resolving the conflict between the internal management structure and the capital markets, and with great benefit.

LBOs, MBOs, venture capital and private equity organizations have done an especially good job at resolving these issues and public corporations can learn much from their approach.

Management teams receive substantial rewards and penalties through the capital markets as well as through their direct compensation from the company. In Section VII, we analyze the complex relationships between managers, analysts, and the capital market, examine the incentives firms have to manage earnings to meet or beat analyst forecasts, and show how managers playing the earnings-management game systematically erode the integrity of the organization and destroy organizational value. We highlight the puzzling equilibrium in this market that seems to suggest collusion between analysts and managers at the expense of investors — an area that is ripe for further research.

Finally, Section VIII offers a brief set of conclusions that are intended to complement the summary of our recommendations that follows directly below. We resist the temptation in an already long report to summarize or justify each recommendation or guiding principle here. Instead we list them here and provide page references where they appear in the document along with a brief comment where warranted.

List of Recommendations and Guiding Principles

R-5. Compensation committees should carefully re-examine fixed-share and fixed-option grant programs, fully understand the cost and incentive implications of fixed-share/option vs. fixed-value plans, and communicate to share recipients the value (as measured by their opportunity cost to the firm) of the grants they receive and not just the number of shares or options. 42

Given the seemingly widespread ignorance of the value of options and their cost to the firm (witness the economically empty, but continuing, claim that there should be no accounting based charge to earnings for such awards) one can see how a compensation committee could be led to a fixed-share scheme rather than fixed-value option award plan. Suppose we award the CEO 100,000 options this year, the stock price doubles, and we award him 50,000 options the following year to keep the cost the same. How do we deal with the claim that we are penalizing him for success? Indeed, dealing with this conflict is almost impossible if we refuse to calculate the grant-date dollar value of the option award and continue to argue that there is no cost to the firm of option awards.

R-6. High equity-based compensation for management requires increased monitoring by the board and compensation and audit committees of reporting policies and the company's relations with the capital markets in general. 51

Because incentives are greater in the presence of high equity-based compensation (both to increase value and to avoid destruction of value), boards must understand that additional monitoring is likely to be required. Because of the increased benefits of manipulating financial reports and/or operating decisions to pump up the stock and therefore generate larger payoffs in the short term, compensation and audit committees must increase their monitoring. In addition, they should pay careful attention to ensuring that their managers cannot benefit from short-term increases in stock prices that are achieved at the expense of long-term value destruction.

R-7. If our company's stock price starts to become overvalued we must resist the temptation to enjoy and encourage it. We must make sure that we are communicating to the markets the information regarding the firm's current and long run health and prospects. 51

Management and the board should not be in the business of telling the markets what value is. That is for the markets and the analysts to determine. Management must be accountable for informing markets on the firm's strategy and its progress (or lack of it) on executing it. Managers must work to make their organizations far more transparent to investors and to the markets. Companies should state their strategies clearly, identify the relevant value drivers and report auditable metrics on their progress in executing the strategy. This reporting should address that part of the firms share price not directly linked to observable cash flows through a clear description of the growth opportunities they foresee and a willingness to tell the markets when they perceive their stock price is overvalued.

R-8. Audit committees and boards should establish regular communication with substantial short sellers of the company's stock. 52

Those who have bet their own money on the future decline of a company's stock are potentially valuable sources of information regarding potential overvaluation of our firm. Therefore the board and particularly the audit committee should be very interested in hearing the logic behind short sellers actions. There may be good reasons why the board and committee choose to ignore such information after evaluating it (for example, some short sellers might have an interest in disseminating incorrect information so as to profit in the short run), but it would be foolhardy not to be informed of the views of short sellers of our securities. This will require a substantial change of attitude in most boards and management teams where short sellers are commonly thought of as the "enemy".

R-9. Business educators, while teaching students the desirability of maximizing value, must also teach them about the dangers of overvaluation. Maximizing firm value does not mean maximizing the price of the stock. 52

R-10. Compensation committees must take full control of the compensation process, policies, and practices. 54

In particular compensation committees should jealously guard their initiation rights over executive compensation. They must abandon the role of simply ratifying management's compensation initiatives. Obviously guarding their initiation rights does not mean that committees should make decisions and recommendations to the whole board without discussions with management, but this is quite different from allowing management to *de facto* seize the compensation initiation rights. Compensation committees can ask for data or information from corporate human resource officers, but these officers should report directly to the committee (and not to top management) for committee-related assignments. Similarly, compensation consultants should be hired by, and report directly to, the compensation committee and not to management.

R-11. Firms should resolutely refuse as a matter of policy to pay the fees for the contracting agents negotiating for the CEO or other top-managers. 56

Such reimbursements would appear to be a violation of the board's fiduciary responsibility to the firm, and have clearly undesirable incentive effects on managers' decisions to hire such agents and for the aggressiveness and time such agent's spend in the negotiation process.

R-12. Compensation committees should employ their own professional contracting agents when hiring new top-level managers. 56

It is especially important for the committee to do so when the manager being recruited has hired his or her own agent. The conflicts of interests in such negotiations are high with current managers and even current board members (who quite reasonably wish to bring a new person on board in a climate of cooperation and good will). Therefore, bringing in an outsider who answers solely to the compensation committee to handle much of the details of the negotiation can help put balance back into such negotiations. Moreover, boards should be wary of announcing the new appointment before the terms of engagement have been agreed upon.

R-36. The compensation committee should take the lead in seeing that Strategic Value Accountability is clearly assigned to those who have the unique combination of business judgment, financial knowledge, wisdom, and willingness to take on the critical task of managing the interface between the operating organization and the capital markets so as to create value. 91

Let us be clear that the assignment of the decision rights for managing relations with the capital markets is much more than simply talking to investors and institutions to assess their interests, opinions, desires and advice. It goes to the core of what it means to direct the organization so that choices are made that will maximize the chance of competitive success and the efficient use of society's scarce resources (human, capital, technological and material) entrusted to the organization. Compensation committees must confront these issues. The committee must see to it that this talent and capacity is recruited into the organization and retained. They must see to it that those who have accepted the Strategic Value Accountability task are held to the value consequences even when they turn out poorly.

R-37. Firms must restart the conversation between corporate managers and Wall Street by "just saying no" to the old game of earnings management and earnings guidance. 103

This will not be easy. However, eliminating or reducing the influence of these corrupting forces on the firm will be an important step in bolstering the integrity of corporations. There is a window of opportunity now that analysts and the financial institutions that employ them have fallen into disrepute. It is the analyst's job to forecast earnings and to estimate their implications for value. People are highly aware of the malaise that has gripped the business world. Executives are wondering how to invest in the integrity of their companies. Researchers are starting to examine some of the issues. But this window won't remain open forever and if we don't seize this moment to identify the problem, talk about it, and learn from it, and change the system we could find ourselves trapped once again in a vicious, destructive cycle. And let's be clear, ending the earnings management game (as Coca Cola, Gillette and USA Neworks, and others have), does not mean ending communications with analysts and the capital markets.

R-38. Senior managers must communicate with the capital markets. They must understand what drives value in their organization and align internal goals with those drivers, not with analysts' expectations. 104

To limit wishful thinking, managers should reconcile their company's projections to industry and rivals' projections. When the company's expectations lie outside what is widely viewed as the industry's growth rate, managers should explain how and why they will be able to outperform their market. Some will argue that making this all clear to the analysts will reveal valuable information to their competitors. "To this, we have a simple response: If your strategy is based on your competitor not knowing what you are doing as opposed to not being able to do what you can do, you cannot be successful in the long run no matter who knows what." (Fuller and Jensen (2002))

I. The Conceptual Foundations of Executive Compensation

The Governing Objective of the Corporation[4]

The corporate objective function, or more simply its governing objective,[5] plays a critical role in corporate productivity and efficiency, social welfare, and the accountability of managers and directors. Yet there is much misunderstanding and confusion about whether there should be such a single governing objective and if so, what it should be. We can provide an immediate answer to the first of these issues: since it is logically impossible to maximize in more than one dimension, purposeful behavior requires a single-dimensional governing objective. As someone once said, "multiple objectives is no objective".

A random sampling of annual reports will predictably reveal a variety of stated company objectives, including maximizing shareholder value, increasing customer and employee satisfaction, building the highest-possible quality products, and furthering charitable ties to the local community. However, two-hundred years of research in economics and finance have produced the result that if our objective is to maximize the efficiency with which society utilizes its resources (that is to avoid waste and to maximize the size of the pie), then the proper and unique objective for each company in the society is to maximize the long-run total value of the firm.[6] Firm value will not be maximized, of course, with unhappy customers and employees or with poor products. Therefore, consistent with "stakeholder theory"[7] value-maximizing firms will be concerned about relations with all their constituencies. A firm cannot maximize value if it ignores the interest of its stakeholders.

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4 This section draws heavily on Jensen, 2001b, "Value Maximization, Stakeholder Theory, and the Corporate Objective Function", *European Financial Management Review,* V. 7, No. 3: pp. 297-317 (available from the Social Science Research Network eLibrary at: http://papers.ssrn.com/Abstract=220671), and the reader will find extensive discussion of these complex issues there.

5 We borrow the "governing objective" language from McTaggart, Kontes and Mankins, 1994, *The Value Imperative: Managing for Superior Shareholder Returns*, New York: The Free Press.

6 This conclusion holds under the assumption that the government effectively blocks private monopolies from exercising their monopoly pricing power, that it sets the rules of the game so as to cause each company and individual to internalize the costs and benefits of the physical (not value) effects of their actions on others, and that all goods are priced. See Jensen, "Value Maximization, Stakeholder Theory, and the Corporate Objective Function", for an extensive discussion of these issues and others associated with stakeholder theory and value maximization.

7 Stakeholder theory, argues that managers should make decisions so as to take account of the interests of all stakeholders in a firm (including not only financial claimants, but also employees, customers, communities, governmental officials, and others).

But unlike "stakeholder theory", value maximization gives boards and managers a principled way to think about and to make the tradeoffs that must be made between various constituencies. Because advocates of stakeholder theory refuse to specify how to make the necessary tradeoffs among these competing interests, they leave managers with a theory that makes it impossible to make purposeful decisions. Value maximization, for example, says that customer and employee satisfaction and product quality should only be increased to the point where further increases in each would reduce firm value. This means for example that we want a firm to expend a dollar's worth of resources to generate benefits for any constituency up to the point where that constituency values those benefits at one dollar or more. Beyond that we are wasting both the firm's and society's resources. Social welfare maximization thus implies that creating value should not be simply one of many competing corporate objectives, but the preeminent or governing objective.

Creating value takes more than acceptance of value maximization as the organizational objective. As a statement of corporate purpose or vision, value maximization is not likely to tap into the energy and enthusiasm of employees and managers to create value. Seen in this light, change in long-term market value becomes the *scorecard* that managers, directors, and others use to assess success or failure of the organization. Since we never know when something has been maximized it is better to think of value creation rather than value maximization. Choosing value creation as the corporate scorecard must be complemented by a corporate vision, strategy and tactics that unite participants in the organization in its struggle for dominance in its competitive arena.[8]

One way to see the how important it is for the board and management to decide on a clearly defined single-dimensional governing objective is that without it there can be no principled evaluation or monitoring of management performance. Therefore, it is the precursor to most all the critical activities of the compensation committee. The governing objective for a corporation is like the "score" for a sporting event. One thing that is critical for a scorecard is that it must provide a score so that one can distinguish who won. Stakeholder theory provides no score, and therefore there is no way within it to tell whether the firm is better or worse off. And without a score, there is no principled way to hold management accountable for its performance as steward of the firm's resources. Without a single-dimensional governing objective managers are either left unmonitored or are subject to the vagaries of an evaluation process in which the evaluator

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[8] In his recent article, David Kay, 2004, "Forget How the Crow Flies", *Financial Times,* January 18, pp. W1, W2 provides an excellent discussion of *obliquity,* the paradoxical phenomenon in which "goals are more likely to be achieved when pursued indirectly" — another reason why the governing objective must not be interpreted as an organization's vision, purpose or strategy.

can change the weights on a set of agreed upon critical dimensions to arrive at any score he or she pleases.

The Balanced Scorecard Gives No Score

Since the Balanced Scorecard (Kaplan and Norton (1996)) is the managerial equivalent of stakeholder theory, the same conclusions hold. Balanced Scorecard theory is flawed because it presents managers with a scorecard that gives no score — that is, no single-valued measure of how they have performed. Thus managers evaluated with such a system (which can easily have two dozen measures and provides no information on the tradeoffs between them) have no way to make principled or purposeful decisions, and the evaluators have no way to make principled evaluations. The solution is to define a true (single dimensional) score for measuring performance for the organization or division (and the organization's strategy must be consistent with it). Given this we can then encourage managers to use measures of the drivers of performance in the balanced scorecard to understand better how to maximize their score. And as long as their score is defined properly, (and for lower levels in the organization it need not be and will generally not be value) this will enhance their contribution to the firm.

Enlightened Value Maximization and Enlightened Stakeholder Theory

Because value maximization has gotten a bad name in many circles and because stakeholder theory has suffered similarly we offer a solution. We call the solution *enlightened value maximization*, and it is identical to what we call *enlightened stakeholder theory*. Enlightened value maximization utilizes much of the structure of stakeholder theory but accepts maximization of the long run value of the firm as the criterion for making the requisite tradeoffs among its stakeholders. Managers, directors, strategists, and management scientists can benefit from enlightened stakeholder theory. Enlightened stakeholder theory specifies long-term value maximization or value seeking as the firm's governing objective and therefore solves the problems that arise from the multiple objectives that accompany traditional stakeholder theory.

Firm Value Maximization Does Not Imply Maximization of Short Run Stock Price

Firm value is not technically the same as shareholder value, because "firm value" also includes the values to all other financial claimants such as creditors, debt holders and preferred shareholders. Because shareholders are the residual claimants of the firm, we often call shareholders the "owners" and can loosely speak of the objective of the company as creating long-run shareholder value. But it is well to be aware that it is possible for management and a board to make decisions that *decrease* total firm value and total social value while *increasing* shareholder value. This clearly undesirable result can happen, for example, as long as the

changes transfer enough value from creditors and debt holders to shareholders to more than offset the decline in firm value.

Throughout this report, we will assume that the appropriate objective of the firm is to maximize total long-run firm value, and that well-designed compensation plans will encourage managers to take actions that increase this value while avoiding actions that destroy value. We will *not* assume that "creating long-run shareholder value" is synonymous with "maximizing company share prices in the short run." If stock markets are efficient in the strong-form sense[9] that all knowable information is immediately impounded into share prices, then any change in long-run shareholder value will, indeed, be immediately reflected into a corresponding change in the share price. However, top executives will routinely and inevitably possess information not available to investors. In these situations, changes in short-run share prices will not imply a similar change in long-run shareholder value. In addition, we do not assume the absence of noise traders (those who trade without information and create noise in the system).

Indeed, as discussed at length in Section IV below, we believe that many of the corporate scandals over the last two years were driven, in large part, by executives desperately trying to justify or increase short-run stock prices at the expense of long-run value creation. In addition, the fact that executives and board members will inevitably be in possession of valuable non-public information means that the board and especially the compensation committee must be especially sensitive to ensuring that those who possess it do not use it to the disadvantage of the shareholders and debt holders to which they owe fiduciary duty. We discuss these issues in more length below.

R-1. Companies should embrace enlightened value maximization/enlightened stakeholder theory in which "creating firm value" is not one of many objectives, but the firm's sole or governing objective: the score on their scorecard. And a statement of corporate vision and strategy that guides and motivates the organization in creating value must complement this governing objective.

> Properly understood enlightened value creation makes use of much of what is generally called stakeholder theory, but insists on long-term value creation as the firm's governing objective. This resolves the indeterminacy of stakeholder theory and its inability to provide any principled basis for decision making or evaluation of success or failure of the firm or management. In this sense it is identical to enlightened stakeholder theory. See Jensen (2001b)

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9 Following Jensen, 1969, "Risk, the Pricing of Capital Assets, and the Evaluation of Investment Portfolios", *Journal of Business,* V. 42, No. 2: pp. 167-247 financial economists categorize different degrees of market efficiency as "weak form" (stock prices reflect all information in past stock prices), "semi-strong form" (stock prices reflect all publicly available information), and "strong form" (stock prices reflect all publicly and privately available information).

R-2. Compensation committees should develop a "compensation philosophy" that reflects and is consistently faithful to the governing objective, and the corporate vision and strategy.

The Economics of Compensation

A well-designed compensation package for executives (or for employees at all levels of the organization), will accomplish three things: attract the right executives at the lowest cost; retain the right executives at the lowest cost (and encourage the right executives to leave the firm at the appropriate time); and motivate executives to take actions that create long-run shareholder value and avoid actions that destroy value. There are three critical dimensions in the design of any compensation policy that is to accomplish these objectives:

1. The expected total benefits associated with the job or position (including the costs and benefits of non-pecuniary aspects of the job).

This dimension determines where someone works. Every person will be in the job for which the expected total benefits associated with the job is highest (taking into account the risk of the benefits and the cost of switching employers). We say *expected* because some of the costs or benefits of the job will be uncertain (from the perspective of the employee) and it is therefore the risk-adjusted expected value that is relevant. Therefore, it is the expected total benefits that determine whether we attract and retain the right executives and encourage the right ones to leave.

2. The composition of the compensation package.

This dimension involves the determination of the individual elements of the compensation package (including for example the amount of cash received as salary, the amount of risky performance-related cash, stock, restricted stock or options, retirement benefits, non-pecuniary benefits such as prestige, the emolument package, and so on). It is in the interest of both the employer and employee to structure the composition of the package so that it is efficient in the sense that for any given total cost to the company the benefits to the employee are maximized. Or for any given total benefits to the individual the total cost to the company is minimized. Thus the correct or optimal composition of the compensation package will be efficient in the sense that no resources are wasted. It's a little more complicated for aspects of the working environment or pay package that affect the productivity of the employee, but the substance does not change.[10]

[10] Taking into account the productivity effects of any item personally valued by the employee means we define the cost to the employer of an increment in such a benefit as the full incremental cost minus the value of any positive productivity effects (or plus the value of any reductions in productivity). For example, offering medical coverage is costly but also provides benefits to the firm (by facilitating healthier employees); the value of these benefits to the firm should be subtracted from the cost to derive the net cost. To the extent that liberal health benefits attract less healthy employees to the firm those costs would be added to derive the net full cost.

3. The relation between pay and performance (what for shorthand we call the pay-performance relation).

> This dimension defines which actions and results are rewarded and which are penalized, and therefore determines what an employee works on, how hard the employee works, and the employee's productivity.

Note that our discussion of the pay-performance relation makes no distinction between reward and motivation. If what we reward (ex post) in this period sets a precedent for what will be rewarded in future periods in the mind of the executive, then the reward this period signals something about the pay-performance relation for future periods and therefore affects motivation or incentives. If what we reward this period has no relation in the mind of the executive for what will be rewarded in the future, then it can have no affect on incentives or motivation. A purely random reward system would do this.

The three dimensions of executive pay all have to be managed by the compensation committee, and there are significant policy implications of each dimension. For example, it should be clear that there is no conflict between the executive and the company about the composition of the package. On the other hand there is a conflict between the executive and the company over the level of compensation — the committee wants to hire and retain the executive at the smallest possible premium over his or her best alternative employment and the executive wants to be paid only a small amount less than his or her maximum value to the company. To the extent that the pay-performance relation encourages the executive to create more value and given that there can be sharing of this higher value, both want to get the pay-performance relation right. However, elements of conflict, negotiation, and gaming can enter the discussion over the pay-performance relation for the executive. And if these are not managed properly they can lead to value destruction and inefficient compensation packages.

Well-designed packages will carefully manage the subtle interactions between the three dimensions of compensation. For example, consider two compensation packages that offer the same expected total benefits to the prospective executive — one with a high salary and no retirement benefits, and a second with a low salary but generous (unvested) retirement benefits. While the two packages provide identical "attraction incentives" to the executive, the latter will provide stronger "retention incentives" once the executive has accepted the offer. Similarly, a package with a low salary but high bonus opportunity will provide better motivation than a package with a high salary and lower bonus opportunity (assuming the bonus is earned by activities that result in long-run firm-value creation). Moreover, the composition of the package can affect the types of executives the company can attract: the package with the high retirement benefits will appeal to potential executives planning on staying at the firm for an extended time,

and the package with the high bonus opportunity will appeal to executives who are less risk-averse, more optimistic, and more confident about their ability to create value.

Well-designed packages will also carefully manage the riskiness of the pay package. Bonus opportunities and other performance-contingent pay (such as stock options or long-term incentive plans) are inherently volatile and impose undiversifiable risk on plan participants. While company shareholders are well diversified and neutral to firm-specific risk, executives tend to be risk averse and inherently undiversified (with their monetary as well as human capital invested disproportionately in their company) and will often prefer a pay package promising a fixed base salary over a risky package with the same expected value. Risk-averse executives will "charge" for bearing risk by discounting the value of the risky elements of pay, or demanding higher expected pay levels. This means that the firm faces a tradeoff between having better-motivated employees working hard toward the right outcomes and attracting the right quality executives at the lowest possible cost. This also suggests that the common prescription of "putting more pay at risk" can be misguided when taken alone: while a company indeed wants better-motivated executives, and better motivation almost inevitably involves higher risk, the increased risk by itself increases expected compensation costs and we want to incur these expected costs only when the expected productivity benefits exceed the costs.

Companies imposing risks on executives through their pay packages must ascertain that the associated incentive benefits exceed the increased expected cost of the package. In addition, there are ways that a company can structure its compensation and employment plans that will cause executives who truly believe they can create large value to self select into the firm and those who do not believe they can create value to self select out of the firm. We discuss these issues below in Section V.

Agency Problems and Executive Compensation

If the manager of a firm owned 100 percent of the firm's shares, then (risk aversion and self control problems aside) the decisions made by that manager would be presumed to be those that maximize long-run shareholder value, and there would be no need for additional incentive plans. However, decisions in companies are made not by owners but rather by managers who hold far less than 100 percent of the company's stock. These managers, although hired for their expertise and managerial talent, cannot be expected to make the same decisions as the owners would have made themselves. This "agency problem" is especially prevalent for decisions that are personally costly for managers (such as decisions to layoff employees and sell divisions or the entire company) because the managers bear a disproportionate share of the cost vs. benefits,

and for decisions that benefit managers (such as buying corporate aircraft or remodeling the corporate headquarters) because the managers reap a disproportionate share of the benefits vs. cost (Jensen and Meckling (1976)).

The inherent conflict between managers and shareholders is identical to the conflict arising whenever a principal hires an agent to take actions on the principal's behalf. And we should note that agency problems are a part of all situations in which two or more people engage in cooperative activities. They always have some incompatibility of interests and therefore agency problems will always be present — in corporations, partnerships, non-profits, governmental agencies, and even in families. However, there is an added agency problem in public corporations: top executives are hired, monitored, and rewarded not directly by owners but rather by boards of directors who are elected by, but are not perfect agents for, the shareholder-owners. Well-designed executive compensation packages can mitigate the former type of agency problems by aligning interests of managers and shareholders. Similarly, well-designed corporate governance policies (including director compensation) can mitigate the latter type of agency problems by defining rules, processes, checks, and balances that help ensure boards of directors faithfully fulfill their fiduciary duties to shareholders. Moreover, since well-designed pay policies cannot resolve all conflicts of interest and agency problems between executives and the firm, well-designed corporate governance systems implemented by directors of high integrity must be in place to resolve those conflicts that cannot be handled by compensation policies alone.

Compensation decisions are not made by owners but rather by boards of directors (upon recommendation from the compensation committees). In addition, as discussed at length in Section V below, compensation committees routinely lack the information, expertise and negotiating skills necessary for hard-nosed contract negotiations with incumbent and incoming executives. As a result, many pay packages and processes are poorly designed, and therefore pay packages can create as well as reduce agency problems in organizations, by attracting the wrong managers (or at too high a cost), retaining the wrong managers, and motivating the wrong behavior. Because managers are self interested and because compensation committee members are spending the firm's resources, not their own, there is major potential for the participants in the system to behave in ways that will exacerbate, not reduce, agency problems.

Thus, corporate governance and compensation policies are highly inter-related: bad governance can easily lead to value-destroying pay practices, and many notorious excesses in

pay can be traced to poor governance.[11] Our discussion of compensation problems and their solutions in Section V below will therefore include analyses of corporate governance as well as details of pay design.

[11] Bertrand and Mullainathan, 2001, "Are CEOs Rewarded for Luck? The Ones Without Principals Are", *Quarterly Journal of Economics,* V. 116, No. 3: pp. 901-932 find that CEOs in better-governed firms (defined as firms with large shareholders, low CEO tenure, small board sizes, and boards composed with a majority of outside directors) are less likely to be rewarded for "luck" (e.g., CEOs in petroleum firms rewarded for increases in world oil prices) and are more likely to be "charged" for option grants (through reductions in other forms of pay).

II. A Brief History of Executive Compensation

The Worldwide Economic Environment

Worldwide economic, regulatory, and technological changes over the past three decades fundamentally altered the global economy and constitute what Jensen (1993) characterizes as the Modern Industrial Revolution. The beginning of this revolution can be traced to the conglomeration era of the 1960s and the oil-price shocks of 1973 and 1977. The next two decades witnessed the far-reaching effects of rapid improvements in technology, declines in regulation, the defeat of communism and socialism, growing worldwide capitalism, and globalization of trade which brought billions of laborers earning less than $10 per day into competition with workers in the west. These tectonic shifts created massive excess capacity in many of the world's industries, including automotive, retail trade, steel, tires, textiles, computers, and defense. Corporate managers, loathe to shut down capacity and distribute excess cash back to shareholders, responded by wasting huge amounts of free cash flow[12] through unwarranted diversification and investment programs, which in turn planted the seeds for hostile takeovers, leveraged buyouts, and the use of high-yield debt as both a financing instrument and as a means to force managers to disgorge their excess cash.

The late 1980s brought sweeping changes in both US financial markets and global geopolitics. Court decisions and legislation in the US brought the hostile takeover market to a virtual halt. The high-yield debt market was crippled by the indictment and subsequent guilty pleas of Michael Milken and Drexel Burnham Lambert and by restrictions on high-yield debt holdings imposed on savings institutions, commercial banks, and insurance firms, and by major punitive changes in the US bankruptcy law that made it uneconomic to reorganize troubled firms outside of bankruptcy. The prospects for worldwide capitalism soared by the end of the decade, marked by the collapse of Soviet-backed regimes in Poland, Hungary, East Germany, Czechoslovakia, Bulgaria, and Romania, the fall of the Berlin Wall, and (in 1990) the reunification of Germany and the disintegration of the Soviet Union.

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[12] By free cash flow we mean cash flow in excess of that which can be reinvested at returns equal to or better than the cost of capital. See Jensen, 1986, "Agency Costs of Free Cash Flow: Corporate Finance and Takeovers", *American Economic Review,* V. 76, No. 2: pp. 323-329 (available from the Social Science Research Network eLibrary at: http://ssrn.com/Abstract=99580)

The 1990s witnessed the emergence of the Internet and, with it, the rise of the "new economy" and so-called "dot.com" firms. The strong stock market in the latter half of the decade spurred a boom in initial public offerings, spin-offs, "tracking" shares (shares issued on a division of a larger company), and large mergers financed primarily with equity. Dividend yields plummeted as firms paid lower dividends and substituted share repurchases over dividends.[13] By the early 2000s it became apparent that the shares of many firms (especially new-economy firms) were grossly overvalued, and in many cases propped up by questionable or fraudulent accounting, legal, brokerage, investment banking and other financial practices. Share prices plummeted, and many large US companies—including Enron, Arthur Andersen, KPMG, Lucent, WorldCom, Tyco, HealthSouth and Xerox — became embroiled in accounting scandals.[14]

Trends in Executive Compensation

The fundamental changes in the global economy have led to (and to some extent have been influenced by) pronounced changes in executive compensation practices. The pay for chief executive officers (CEOs) in large US firms increased dramatically over the past three decades, driven by an explosion in grants of stock options. Figure 1 shows that average total compensation for CEOs in S&P 500 firms (adjusted for inflation using 2003-constant dollars) increased from about $860,000 in 1970 to nearly $15 million in 2000, falling to $8.8 million in 2003.

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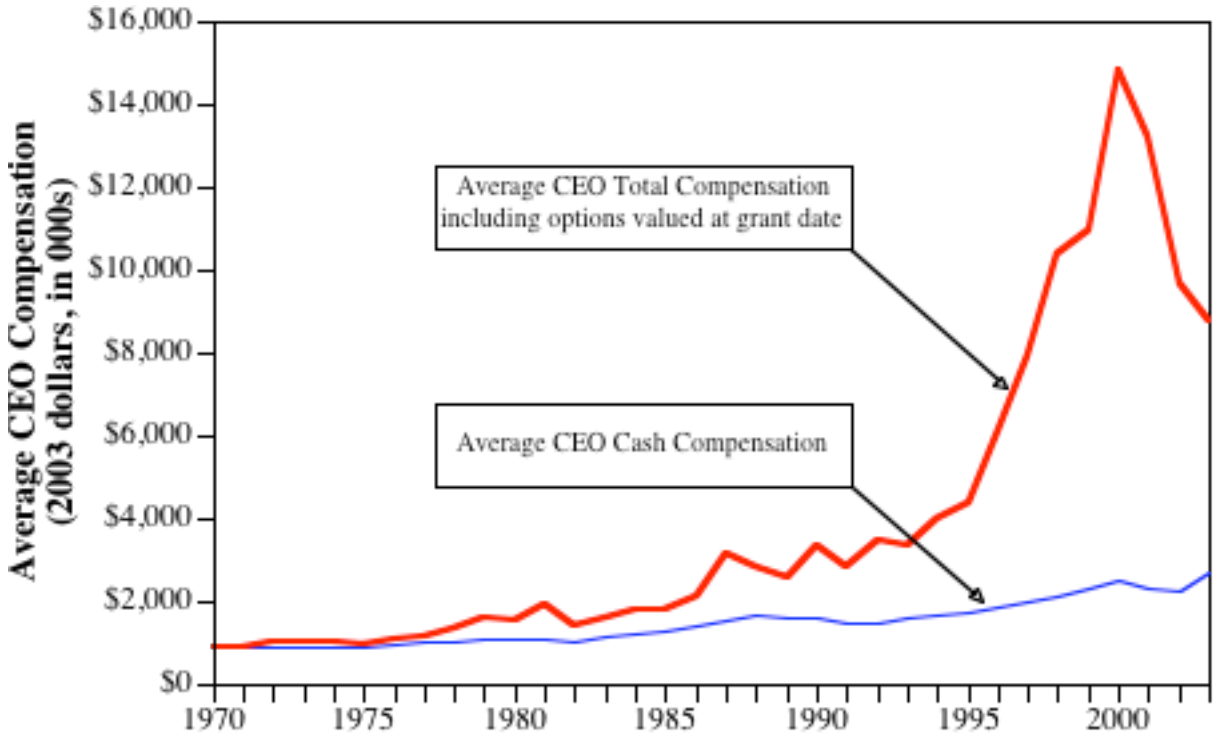
[13] See Fama and French, 2001, "Disappearing Dividends: Changing Firm Characteristics or Lower Propensity to Pay?" *Journal of Financial Economics,* V. 60, No. 1: pp. 3-43 and DeAngelo, DeAngelo and Skinner, 2002, "Are Dividends Disappearing? Dividend Concentration and the Consolidation of Earnings", *USC Center for Law, Economics and Organization (CLEO) Working Paper No. 02-9, forthcoming in Journal of Financial Economics*, (available from the Social Science Research Network eLibrary at: http://papers.ssrn.com/Abstract=318562).

[14] Erickson, Hanlon and Maydew, 2002, "How Much Will Firms Pay for Earnings that Do Not Exist? Evidence of Taxes Paid on Allegedly Fraudulent Earnings", University of Chicago Working Paper, November 1, 2002, Chicago, IL (available from the Social Science Electronic eLibrary at: http://papers.ssrn.com/abstract=347420).

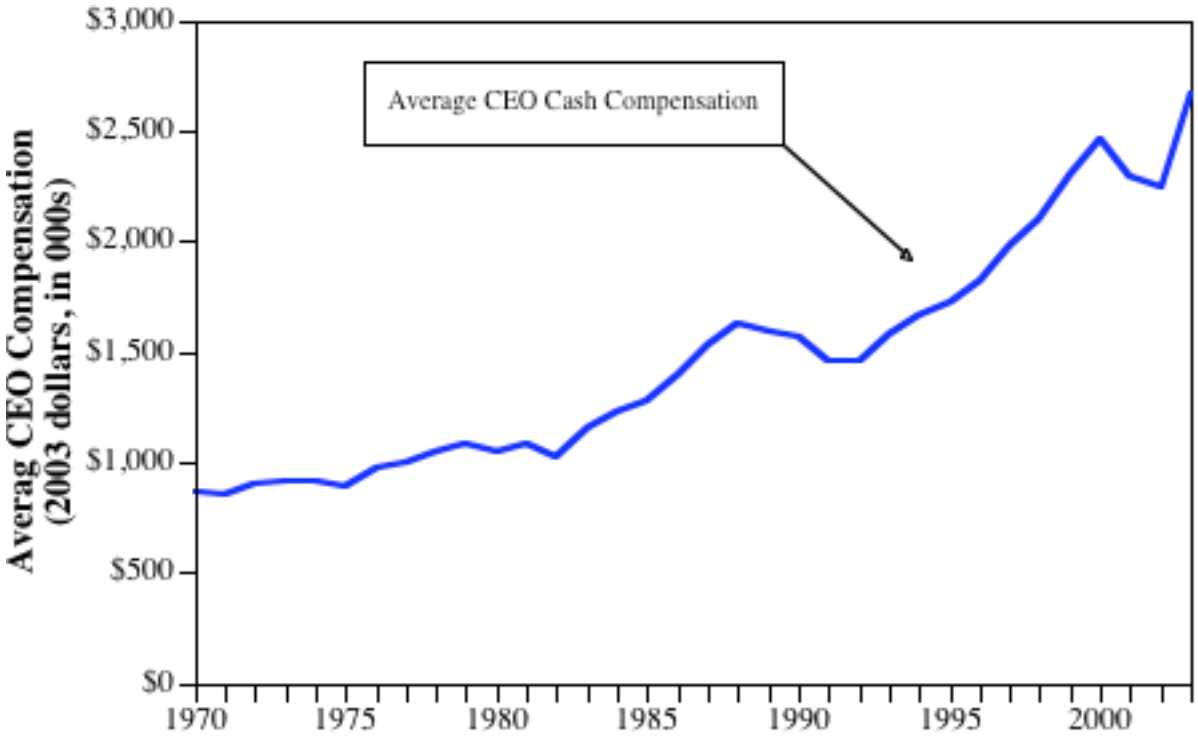
Figure 1 Average Cash and Total Compensation for CEOs in S&P 500 Firms, 1970-2003



Note: Sample is based on all CEOs included in the S&P 500, using data from Forbes and ExecuComp. CEO total pay includes cash pay, restricted stock, payouts from long-term pay programs and the value of stock options granted using ExecuComp's modified Black-Scholes approach. (Total pay prior to 1978 excludes option grants, while total pay between 1978 and 1991 is computed using the amounts *realized* from exercising stock options during the year, rather than grant-date values.) Dollar amounts are converted to 2003-constant dollars using the Consumer Price Index.

Over this time period, the average grant-date Black-Scholes value of options soared from near zero in 1970 to over $7.3 million in 2000, falling to $3.3 million in 2003. The difference between the $7.0 million option grant value in 2000 and the $14.8 million total compensation is made up of cash compensation, restricted stock, retirement benefits, and payouts from a variety of long-term incentive plans. Even base salaries and bonuses ("cash compensation") tripled over this time period. As shown in Figure 1 and emphasized in Figure 2, inflation-adjusted cash compensation increased from about $850,000 in 1970 to almost $2.7 million by 2003.

Figure 2 Average Cash Compensation for CEOs in S&P 500 Firms, 1970-2003



Note: Sample is based on all CEOs included in the S&P 500, using cash compensation (salary and bonus) data from *Forbes* and ExecuComp. Dollar amounts are converted to 2003-constant dollars using the Consumer Price Index.

In this section, we chronicle the trends in executive compensation in the US over the past three decades and show how the trends relate to contemporaneous changes in the economic environment.

The 1970s

Throughout the 1970s, executive compensation packages consisted almost entirely of base salaries and bonuses tied to annual performance measures. During this decade, almost half of the cross-sectional variation in cash compensation in the US was explained by company size (usually measured by firm revenues), and the highest-paid executives routinely were at the helm of the largest conglomerates and largest steel, automotive, and oil companies. These implicit incentives to increase revenue help explain the unproductive diversification and investment programs in the 1970s, which in turn contributed to increases in excess capacity that further depressed company share prices.

Executives in the 1970s had little incentive to increase company share prices. Executive stock options, popular in the 1960s, fell out of favor in the 1970s following a prolonged depression in the US stock market: the nominal value of the bell-weather Dow Jones average

was basically flat from the beginning of 1965 through the early 1980s (falling from 903 in January 1965 to 871 in January 1982, and only surpassed 1050 on one day over these seventeen years). Over this time period, many firms "repriced" their existing options (by lowering the original exercise price), while others entirely abandoned their option program in favor of accounting-based "long-term incentive plans" promising more predictable payouts to executives.

Companies in industries with excess capacity typically generate free cash flow, that is, cash in excess of the amount that can be productively invested within the company or the industry. In this situation, value is created by downsizing and by returning cash to shareholders who can invest the cash in companies and industries with more promising opportunities. The traditional compensation practices at the time, however, rewarded size and growth and not value creation. In addition, non-monetary aspects of compensation—including power, prestige, and community standing—also tend to be positively linked to firm size and survivability and not to value creation. Overall, the failure of corporate governance and compensation policies of the 1970s helped fuel the creation of excess capacity, which in turn set the stage for the capital market restructuring revolution of the 1980s.

The 1980s

Although there were no large changes to compensation plans and compensation-related incentives in the early 1980s, managers and boards were subject to increasing pressure and incentives from the market for corporate control. Companies with excess cash became targets of hostile takeovers from savvy outsiders — referred to inappropriately at the time as corporate raiders — seeking to put the cash to better uses. These companies also became acquirers (reflecting incumbent managers seeking uses for their excess cash). In both cases the largely cash transactions returned cash to shareholders who could invest it more productively. In addition, acquirers financed transactions by taking on debt (made possible by the emergence of the active market for high-yield debt), which committed the acquirers to return large portions of current and future cash flows to debt holders instead of wasting the cash on unproductive investments. Managers of potential targets, in turn, thwarted takeover attempts by taking on additional debt through leveraged recapitalizations, simultaneously making their firms a less-attractive target while creating value through the commitment to return future free cash flow to the owners of capital.

The availability of high-yield debt also facilitated the emergence of leveraged buyouts in which incumbent managers and outside investors would collaborate to take the company private after paying existing shareholders large premiums for their shares. Managers of these new highly levered organizations faced the discipline of debt (which mitigated incentives to make wasteful

investments) and had large nontradeable equity stakes that provided incentives to create long-run value. In contrast to traditional corporations, owned by widely dispersed and passive shareholders and governed by large boards of directors composed primarily of insiders, the new buyout firms were owned and governed by concentrated active investors (often through "LBO associations" such as Kohlberg-Kravis-Roberts) who created and managed innovative governance systems that facilitated even greater attention to value creation.[15]

Although ill-advised court decisions and legislation virtually shut down the hostile-takeover and LBO market in the US by the late 1980s, the renewed focus on creating shareholder value endured. It became apparent that traditional management incentives focused on company size, stability, and accounting profitability destroyed rather than created value. By this time, shareholder activists and academics (including the first two authors of this report) were increasingly demanding that executive pay be tied more closely to company value through increases in stock options and other forms of equity-based incentives. As evident from Figure 1, cash compensation continued to grow in real terms after the mid-1980s, but became a smaller part of the total compensation package.

Another pay-related development in the takeover market of the 1980s was the evolution of "Golden Parachute" agreements that awarded payments to incumbent managers who lost their jobs in connection with a change in control.[16] Although often introduced as a takeover defense (since these agreements make it more costly to acquire a firm), these agreements facilitated transactions by lessening incumbent management resistance to takeovers.

Change-in-control agreements were fairly rare in the US before passage of the Deficit Reduction Act of 1984, when the US government imposed a special excise tax on payments exceeding three times the executive's average recent compensation.[17] Ironically, although the cap was meant to reduce the generosity of parachute payments, the government action appeared

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[15] See Jensen, 1989a, "Active Investors, LBOs, and the Privatization of Bankruptcy", *Statement before the House Ways and Means Committee, February 1, 1989.; Journal of Applied Corporate Finance,* V. 2, No. 1: pp. 35-44 (available from the Social Science Research Network eLibrary at: http://papers.ssrn.com/Abstract=244152); Jensen, 1989c, "The Effects of LBOs and Corporate Debt on the Economy", in *Remarks before the Subcommittee on Telecommunications and Finance, U.S. House of Representatives Hearings on Leveraged Buyouts*, Washington, D.C.: Government Accounting Office; Kaplan, "Management Buyouts: Evidence on Post-Buyout Operating Changes", *Journal of Financial Economics;* Kaplan, 1988, "Management Buyouts: Efficiency Gains or Value Transfers", Chicago, IL: University of Chicago, Unpublished manuscript.; Kaplan, 1989, "The Effects of Management Buyouts on Operating Performance and Value", *Journal of Financial Economics,* V. 24, No. 2: pp. 217-254; Kaplan, 1990, "Sources of Value in Management Buyouts", *Journal of Financial Economics*,

[16] In a minority of change-in-control agreements, managers can receive control payouts even without losing their jobs.

[17] Weston, Mitchell and Mulherin, 2004, *Takeovers, Restructuring, and Corporate Governance*, Upper Saddle River, N.J.: Pearson Prentice Hall, describe the tax regulations related to parachute payments.

to increase them. The new rules were followed by the introduction of golden parachutes in hundreds of companies that had no change-in-control agreements. Apparently compensation committees and managers took the regulation as effectively endorsing such change-in-control agreements as well as the three times average compensation (which became the standard).

Change-in-control agreements are now commonplace throughout corporate America: 70 percent of the largest 1000 companies had change-in-control agreements in place in 2000, up from 41 percent in 1988 and 57 percent in 1996 (Alpern and McGowan (2001)). We believe their widespread use has contributed to the emergence of comprehensive employment agreements designed to protect executives from termination for reasons other than a control change. Virtually all these agreements now provide compensation for executives terminated for reasons other than moral turpitude, gross negligence, or felony convictions. Notably, compensation cannot be denied for termination due to incompetence, and we are unable to understand how such provisions could be in the interests of the firm. We believe in general that these contracts have become so extreme and so abusive that they call into question the integrity of important parts of the compensation process and the fiduciary responsibilities of boards and compensation committees. An extreme example is the case in which The Walt Disney Company, under the stewardship of CEO Michael Eisner, paid Michael Ovitz stock options and cash worth over $100 million dollars when he was released after 14 months on the job at Disney (and amid widespread rumors/accusations of his incompetence).

R-3. Employment contracts for CEOs and top managers should be discouraged and when they do exist they should not provide for compensation when a manager is terminated for incompetence or cause.

The 1990s

Although the US business press had followed CEO pay for decades, the CEO pay debate achieved international prominence in the early 1990s. The controversy heightened with the November 1991 introduction of Graef Crystal's exposé on CEO pay, *In Search of Excess*, and exploded following President George H. W. Bush's ill-timed pilgrimage to Japan in January 1992, accompanied by an entourage of highly paid US executives. What was meant to be a plea for Japanese trade concessions dissolved into accusations that US competitiveness was hindered by its excessive executive compensation practices as attention focused on the "huge pay disparities between top executives in the two countries."[18]

[18] "SEC to Push for Data on Pay of Executives", 1992, *Wall Street Journal,* January 21.

Consistent with *Time* magazine's labeling of CEO pay as the "populist issue that no politician can resist,"[19] CEO pay became a major political issue in the US. High CEO salaries emerged as a bipartisan campaign issue among the leading candidates in the 1992 presidential election.[20] Legislation was introduced in the House of Representatives disallowing deductions for compensation exceeding 25 times the lowest-paid worker, and the "Corporate Pay Responsibility Act" was introduced in the Senate to give shareholders' more rights to propose compensation-related policies. The Securities and Exchange Commission (SEC) preempted the pending Senate bill in February 1992 by requiring companies to include non-binding shareholder resolutions about CEO pay in company proxy statements,[21] and announced sweeping new rules affecting the disclosure of top executive compensation in the annual proxy statement in October 1992. In 1994, the Clinton tax act (the Omnibus Budget Reconciliation Act of 1993) defined non-performance-related compensation in excess of $1 million as "unreasonable" and therefore not deductible as an ordinary business expense for corporate income tax purposes.

Ironically, although the populist objective was to reduce "excessive" CEO pay levels, the ultimate outcome of the controversy (similar to what happened in response to the Golden Parachute restrictions) was a significant increase in executive compensation, driven by an escalation in option grants that satisfied the new IRS regulations and allowed pay significantly in excess of $1 million to be tax deductible to the corporation. It appears from the data that once the Act defined $1 million compensation as reasonable many companies increased cash compensation to $1 million,[22] and then began to add on the performance based pay that satisfied the act.

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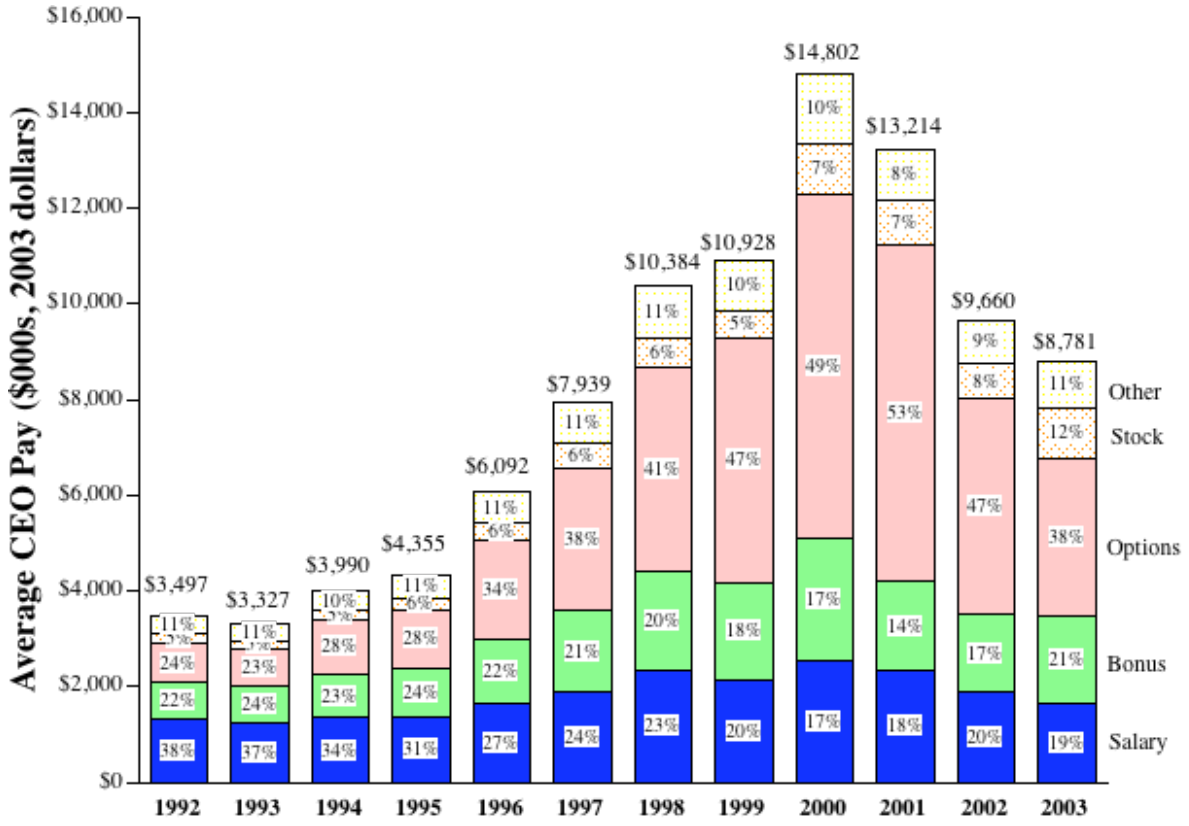
19 McCarroll, 1992, "The Shareholders Strike Back: Executive Pay", *Time*, May 5.

20 "Politics and Policy—Campaign '92: From Quayle to Clinton, Politicians are Pouncing on the Hot Issue of Top Executive's Hefty Salaries", 1992, *Wall Street Journal,* January 15.

21 "Shareholder Groups Cheer SEC's Moves on Disclosure of Executive Compensation", 1992, *Wall Street Journal,* February 14.

22 Rose and Wolfram, 2002, "Regulating Executive Pay: Using the Tax Code to Influence Chief Executive Officer Compensation", *Journal of Labor Economics,* V. 20, No. 2: pp. S138-S175 document a "spike" in base salaries at $1 million that did not exist before the new tax rules.

Figure 3 Average Compensation for CEOs in S&P 500 Firms, 1992-2003



Note: Average pay levels (in 2003-constant dollars) based on ExecuComp data for S&P 500 CEOs. Total compensation (indicated by bar height) defined as the sum of salaries, bonuses, benefits, stock options (valued on date of grant using ExecuComp's modified Black-Scholes formula), stock grants, and other compensation.

Figure 3 shows the composition and level of CEO pay in S&P 500 firms from 1992 to 2003, reported in inflation-adjusted 2003 dollars. In 1992, base salaries accounted for 38 percent of the $3.5 million average CEO pay package, while stock options (valued at grant date using the Black-Scholes formula) accounted for 24 percent. By the peak pay year 2000, base salaries accounted for only 17 percent of the average $14.8 million pay, while options accounted for half of pay.

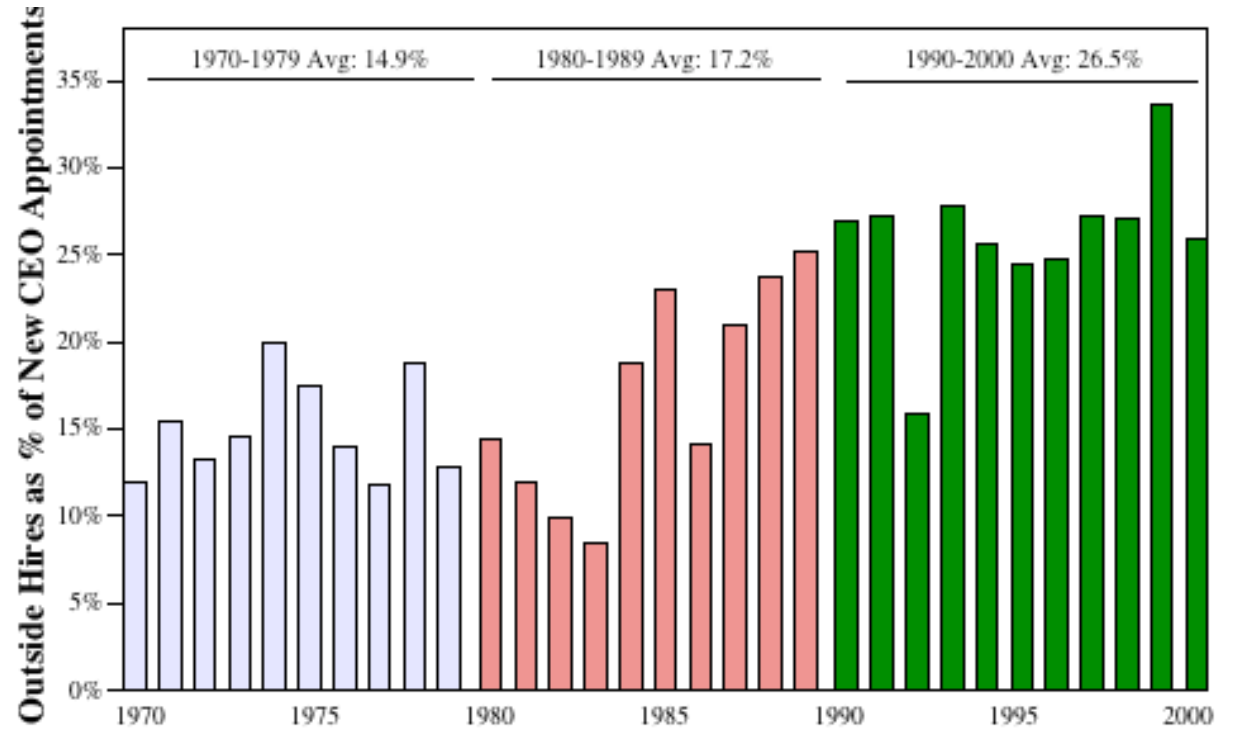
The 2000s

The 2000s has brought several important (and, in retrospect, predictable) changes in the level and composition of CEO pay. From the peak pay year in 2000 to 2003, average total CEO pay fell 40 percent from $14.8 million to $8.8 million. The decrease in pay reflected modest declines in average base salaries and bonuses, and a substantial decline in the grant-date value of stock options. In 2000, the average S&P 500 CEO received options worth $7.2 million. By 2003, the average CEO option grant had declined to $3.3 million. As discussed at length in Section III

below, this decline reflects both decreases in the number of options granted and stock-price trends that have lowered the value of each option granted.

As suggested by Figure 3, the decline in stock option grants in the early 2000s has been associated with an increase in restricted stock grants, which accounted for 12 percent of average pay by 2003. The grants are "restricted" in the sense that shares are forfeited under certain conditions (usually related to employee longevity), but the restrictions typically lapse independent of company performance. In many cases, including Microsoft and Cablevision, current outstanding options were cancelled and replaced with restricted stock.

Figure 4 Outside Hires as Percentage of New CEO Appointments in Large US Firms, 1970-2000



Note: Figure shows the fraction of newly appointed CEOs hired from the outside. Executives serving in their firm for less than a year before the CEO appointment are considered external hires, while those employed for more than a year are considered inside hires. Data include all companies appearing in *Forbes* annual surveys between 1970 and 2000, and include 2,783 newly appointed CEOs from 1,323 companies. (The full *Forbes* database includes 4,633 executives and 2,144 firms, but we exclude CEOs appointed prior to the first year the company is included in the *Forbes* surveys, and also exclude CEOs appointed after the last year the company is included in the *Forbes* surveys).

Trends in CEO Demographics

The increase in US CEO pay over the past thirty years is well documented. An equally pronounced, but less analyzed trend in US corporate governance is the increasing prevalence of filling chief executive officer (CEO) openings through external hires rather than through internal promotions. Figure 4 shows the relative frequency of external vs. internal CEO replacements for companies in the annual *Forbes* surveys from 1970 through 2000.[23] During the 1970s and 1980s, outside hires accounted for 15% and 17% of all CEO replacements, respectively. In contrast, during the 1990s (and through 2000) more than one in four CEOs was hired from outside the company. Boards going outside to replace poorly performing incumbents do not explain the increase in external hiring.

Table 1 Summary Statistics for Newly Appointed CEOs, 1970-2000

	1970-1979	1980-1989	1990-2000
Panel A			
Newly Appointed CEOs	903	888	992
As % of All CEOs	10.2%	10.0%	11.3%
Panel B			
Age at CEO Appointment			
All New Appointments	53.3 yrs	53.3 yrs	53.9 yrs
Internal Promotions	53.2 yrs	53.5 yrs	53.5 yrs
External Hires	51.9 yrs	52.1 yrs	53.2 yrs
Panel C			
Tenure at CEO Appointment			
All New Appointments	18.2 yrs	17.2 yrs	14.1 yrs
Internal Promotions	21.3 yrs	20.7 yrs	19.2 yrs
External Hires	≤1.0 yrs	≤1.0 yrs	≤1.0 yrs

Note: From Murphy and Zabojnik (2003). Executives serving in their firm for less than a year before the CEO appointment are considered external hires, while those employed for more than a year are considered inside hires. Data include all companies appearing in *Forbes* annual surveys between 1970 and 2000, and include 2,783 newly appointed CEOs from 1,323 companies.

Table 1 reports summary statistics for the 2,783 newly appointed US CEOs depicted in Figure 4. The full sample is drawn from 4,633 executives and 2,144 companies appearing in *Forbes* annual surveys between 1970 and 2000. As shown in Panel A, new appointments account

[23] Executives serving in their firm for less than a year before the CEO appointment are considered external hires, while those employed for more than a year are considered inside hires. Data are based on 2,783 newly appointed CEOs from 1,323 companies.

for about 10% of the *Forbes CEOs* from 1970 to 1989; CEO turnover increased modestly to 11.3% in the 1990s. Panel B shows that the average age of newly appointed CEOs has increased slightly over the past three decades. Executives promoted internally tend to be older than those hired from the outside. Panel C of Table 1 shows that the average job tenure (prior to CEO appointment) has declined substantially over the last thirty years, driven in a large part by the increased prevalence of outside hires (who, by construction, have a year or less of tenure upon appointment) and to a smaller degree by a decline in the average tenure for inside appointments.

Murphy and Zabojnik (2003) show that CEOs hired from the outside earn higher levels of compensation than CEOs promoted internally. In addition, CEOs in industries with a higher prevalence of outside hiring are paid more than CEOs in industries characterized by internal promotions. We interpret these facts as indicating that the managerial labor market has become relatively more important for top executives in the US, and the result has been an increase in overall pay levels.

III. The Rise (and Fall) of Stock Options

Executive compensation in the US has skyrocketed over the past thirty years, propelled in large part by increases in the grant-value of option awards. Identifying options as a leading cause of pay escalation does not "explain" the escalation but merely transforms the question to: Why has the option component of the pay package increased so dramatically? [24]

Based on the discussion in the prior section, two potential explanations for the option escalation are apparent. First, the increase in option-based pay may reflect the increased focus on equity-based compensation as advocated at the time by shareholder groups and academic researchers (especially Jensen and Murphy (1990a); Jensen and Murphy (1990b)). Jensen and Murphy showed that CEOs of large companies were paid like bureaucrats in the sense that they were primarily paid for increasing the size of their organizations, received small rewards for superior performance, even smaller penalties for failures, and that the bonus components of the pay packages showed very little variability.

Second, the increase may reflect contemporaneous changes in disclosure and tax rules that reinforced stronger linkages between stock performance and executive pay. The new disclosure rules, for example, implicitly encouraged stock options by emphasizing shareholder return and requiring companies to report only the number of, rather than the value of, options granted in the Summary Compensation Table (as found in the company's proxy statement filed annually with the SEC). In addition, under the new tax rules, stock options are generally considered "performance-based" and therefore exempt from the $1 million cap on deductible compensation.

However, two facts suggest that these two potential explanations are, at best, partial explanations for the escalation in option compensation for US top executives. First, the trends in the grant-date values of options have varied systematically with market share-price movements (although the realized values of options will naturally vary with market movements, there is no obvious reasons why the ex ante grant-date value of options should be so correlated). Second, the escalation in option-based compensation has not been limited to CEOs but in fact has extended down the corporate hierarchy. The efficiency-explanation for increased equity pay (i.e., providing incentives to take actions that increase shareholder value) is most relevant to top-level executives who can take direct actions to affect share prices, but not for lower-level employees. In addition, the

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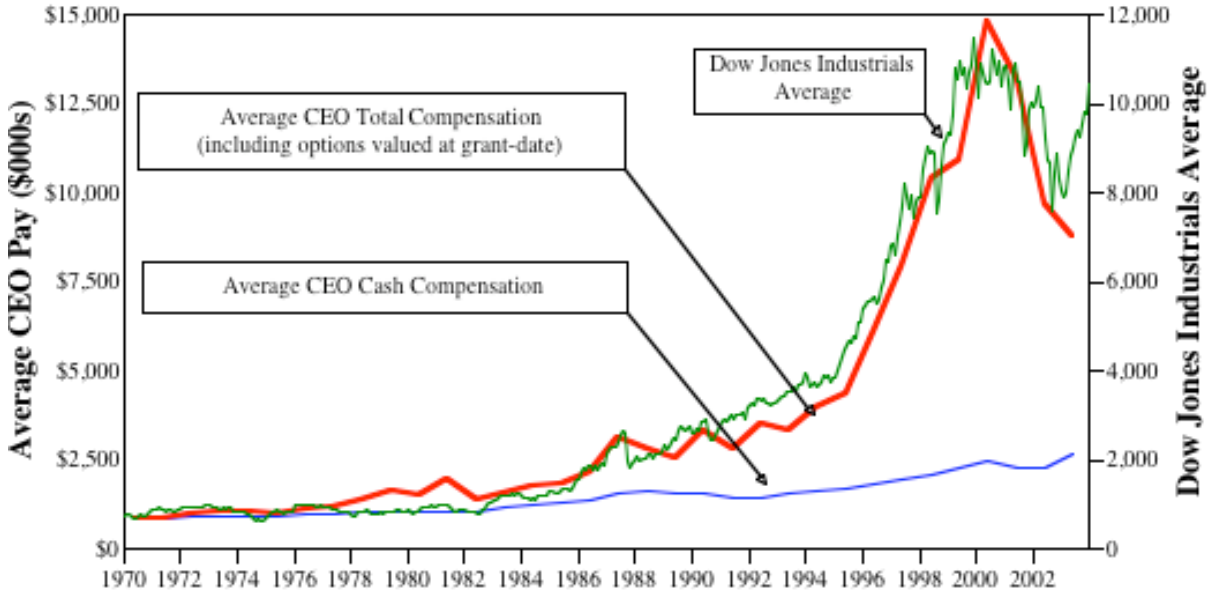
[24] The discussion in this section draws heavily from Hall and Murphy, 2003, "The Trouble with Stock Options", *Journal of Economic Perspectives,* V. 17, No. 3: p. 49+.

Figure 5 Dow Jones Industrial Average, Cash and Total Compensation for CEOs in S&P 500 Firms, 1970-2003



Note: Dow Jones Industrials based on monthly closing averages. Sample is based on all CEOs included in the S&P 500, using data from Forbes and ExecuComp. CEO total pay includes cash pay, restricted stock, payouts from long-term pay programs and the value of stock options granted using ExecuComp's modified Black-Scholes approach. (Total pay prior to 1978 excludes option grants, while total pay between 1978 and 1991 is computed using the amounts *realized* from exercising stock options during the year, rather than grant-date values.)

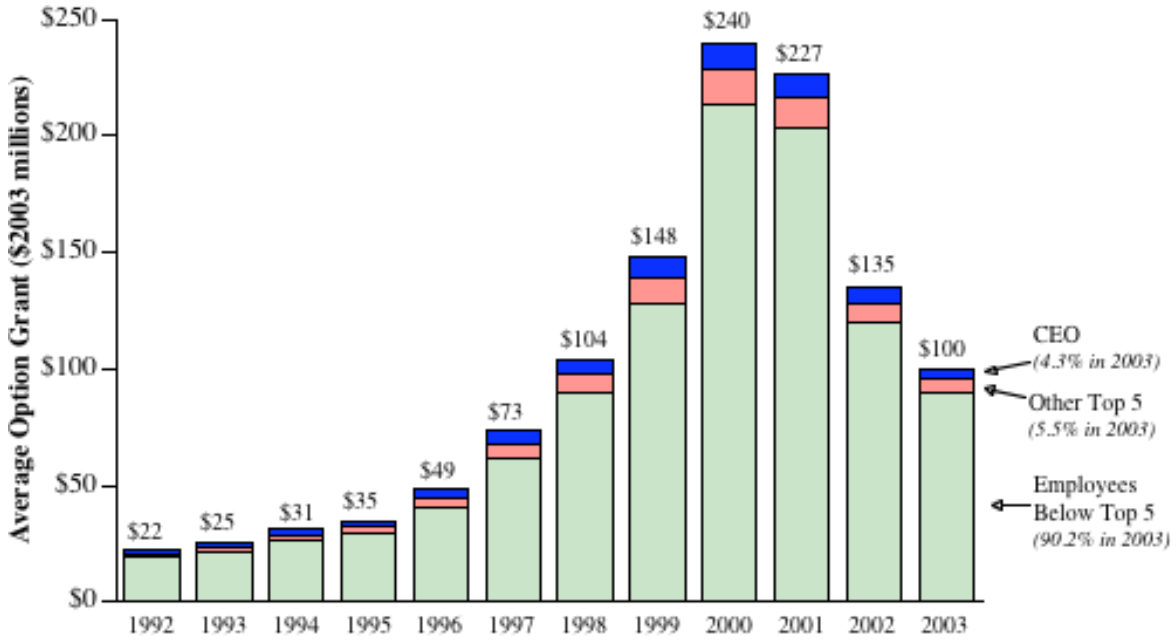
disclosure and tax explanation is explicitly relevant only for the top five executives, and not for executives below the top.

The first fact is illustrated in Figure 5, which repeats Figure 1 (p. 27) but overlays the Dow Jones Industrial Average. The figure shows that CEO cash compensation is weakly correlated with general market movements, but CEO total compensation is strongly correlated with the stock market.[25] The second fact is illustrated in Figure 6 and Figure 7. Figure 6 shows the average inflation-adjusted grant-date values of options awarded by the average firm in the S&P 500 from 1992-2002. Over this decade, the value of options granted increased from an average of $22 million per company to $238 million per company by 2000, falling to $141 million per company in 2002. Employees and executives ranked below the top five have received an increasing share of the total option awards: grants to this group have grown from less than 85

[25] The total compensation data in Figure 5 prior to 1992 are based on amounts realized from exercising options, but options were relatively unimportant during this period and average amounts realized during the year were closely correlated with average amounts granted. From 1992 forward the total compensation data are based on grant-date option values using Black-Scholes values, and there is no obvious reason why it would be optimal for firms to award more value in options as the market rises.

percent of the total in the mid-1990s to over 90 percent by 2002. Figure 7 shows average annual option grants as a fraction of

Figure 6 Grant-Date Values of Employee Stock Options in the S&P 500, 1992-2002

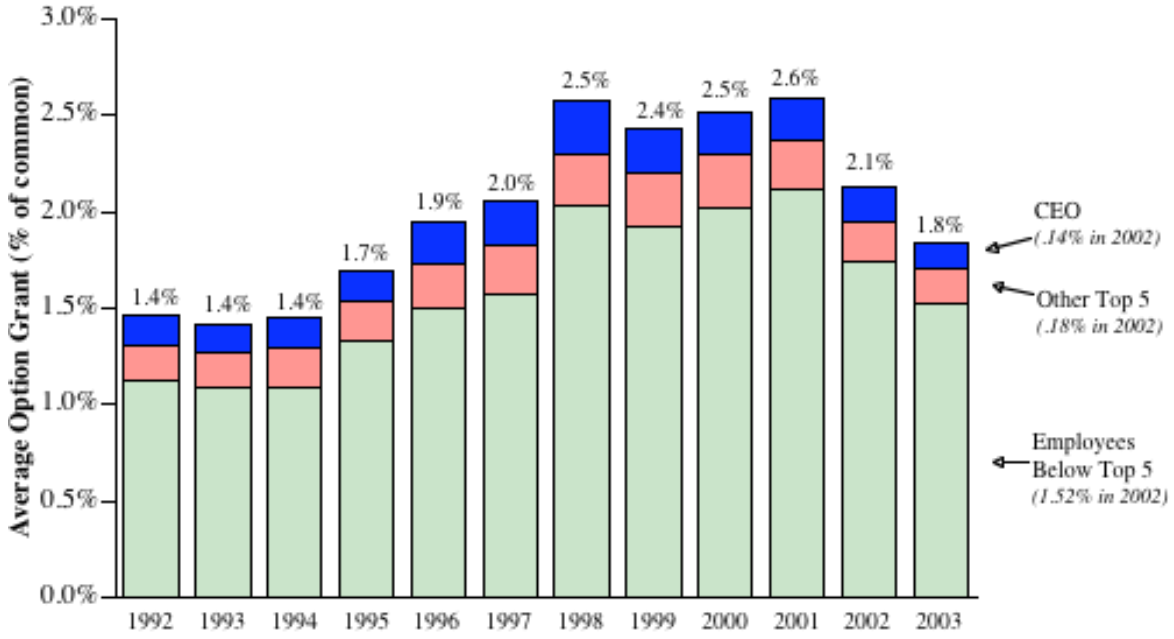


Note: Figure shows the grant-date value of options (in millions of 2002-constant dollars) granted to all employees in an average S&P 500 firm, based on data from S&P's ExecuComp data. Grants below the Top 5 are estimated based on "Percent of Total Grant" disclosures; companies not granting options to any of their top five executives are excluded. Grant-values are based on ExecuComp's Black-Scholes calculations. The number in parentheses indicates the fraction of the grant, on average, that is awarded to the indicated employee (or employee group). Fiscal 2002 results are based on the April 2003 "cut" of ExecuComp, which includes only companies with fiscal closings in December 2002 or earlier.

total common shares outstanding. In 1992, the average S&P 500 company granted its employees options on about 1.4 per cent of its outstanding shares. From 1998 to 2002, in spite of the bull market that increased share prices (that, in turn, increased the value of each granted option), the average S&P 500 company granted options on more than two percent of its shares.

So, given these facts why has option compensation increased? Why has it increased with the market? And why has it increased throughout the hierarchy? We believe the reason is that option-grant decisions are made by board members and executives who believe (incorrectly) that options are a low-cost way to pay people and do not know or care that the value (and cost) of an option rises as the firm's share price rises. In the next section, we explore this claim beginning with the fundamental distinctions between the company's cost of granting an option, the value a risk averse employee-recipient places on that option, and the "perceived cost" of the option from the perspective of corporate decision makers.

Figure 7 Grant-Date Number of Employee Stock Options in the S&P 500, 1992-2003



Note: Figure shows the grant-date number of options as a fraction of total common shares outstanding granted to all employees in an average S&P 500 firm, based on data from S&P's ExecuComp data. Grants below the Top 5 are estimated based on "Percent of Total Grant" disclosures; companies not granting options to any of their top five executives are excluded. The number in parentheses indicates the fraction of the grant, on average, that is awarded to the indicated employee (or employee group). Fiscal 2002 results are based on the April 2003 "cut" of ExecuComp, which includes only companies with fiscal closings in December 2002 or earlier.

The Cost and Value of Options

R-4. The cost to the corporation of granting an option to an employee is the opportunity cost the firm gives up by not selling the option in the market, and that cost should be recognized in the firm's accounting statements as an expense.

When a company grants an option to an employee, it bears an economic cost equal to what an outside investor would pay for the option. With appropriate downward adjustments for early exercise and forfeiture (and ignoring potentially valuable inside information held by executives), the Black and Scholes (1973) formula yields a reasonable estimate of the company's cost of granting an option to an employee.[26]

[26] See Bulow and Shoven, 2004, "Accounting for Stock Options", in *Stanford Research Paper Series Paper No. 1848.*, March, Palo Alto (available from the Social Science Research Network eLibrary at: http://ssrn.com/abstract=521882), Bodie, Kaplan and Merton, 2003, "For the Last Time: Stock Options Are an Expense", *Harvard Business Review*, March: pp. 63-71; Merton, 2004, "Summary of the Oral Testimony of Robert C. Merton, H.R. 3574: Stock Option Accounting Reform Act", March 3, Washington, DC , Integrated Finance, 2004, "Proposal by Integrated Finance Limited for Expensing Employee Compensatory Stock Options for Financial Reporting Purposes", New York .

However, because employees are risk averse and undiversified, and because they are prohibited from trading the options or taking actions to hedge their risk (such as short-selling company stock), employees will naturally value options less than they cost the company to grant.[27] Therefore, because the company's cost exceeds the employee's value, options are an expensive way to convey compensation to risk-averse employees. And just as in the case with risky compensation in general discussed earlier, it is important for the compensation committee and board to ensure that the productivity benefits the company expects to get from awarding costly options are more than enough to make up for the pay premium they have to offer to employees receiving the options.

In our experience, US companies granting options generally do not make a careful comparison of the cost and value of options, but rather treat options as being essentially free to grant. When a US company grants an option to an employee, it bears no accounting charge and incurs no outlay of cash. Moreover, when the option is exercised, the company (usually) issues a new share to the executive, incurs no cash outlay, and receives a cash benefit in the form of a tax deduction for the spread between the stock price and the exercise price. These factors make the "perceived cost" of an option to the company much lower than the economic cost, and often even lower than the value of the option to the employee. As a result, too many options are granted to too many people, and options with favorable accounting treatment will be preferred to better incentive plans with less favorable accounting treatment.

We believe the perceived-cost view explains why the value of options has tracked movements in market stock prices, as documented in Figure 5. If compensation committees think of option awards as low cost or even no cost to the firm and measure their magnitude by the number of options, this correlation between the grant-date values of the option awards and the level of stock prices will be built in to the system. Because the grant-date value of an option is approximately proportional to the level of the stock price, awarding the same number of options after a doubling of stock prices amounts to doubling the value of the option award. In the period 1992-1998 the annual option awards to CEOs rose from 0.17% of the firm to 0.27% in 1998 and back to 0.17% in 2002. Since the Dow Jones index almost tripled during the period 1992-98 this means the annual dollar value of the option awards increased by more than 300% and we can find no reasonable value-maximizing basis for this dramatic increase in compensation. The widespread use of so-called "fixed-share" option award plans (in which roughly the same

[27] In making this statement, we ignore inside information held by the employee about the prospects of the firm, and also ignore the potential incentive benefits accruing to shareholders when employees hold options.

number of stock options are awarded each year) is consistent with this non-rational non-value-creating result.

R-5. Compensation committees should carefully re-examine fixed-share and fixed-option grant programs, fully understand the cost and incentive implications of fixed-share/option vs. fixed-value plans, and communicate to share recipients the value (as measured by their opportunity cost to the firm) of the grants they receive and not just the number of shares or options.

> Given the seemingly widespread ignorance of the value of options and their cost to the firm (witness the economically empty, but continuing, claim that there should be no accounting based charge to earnings for such awards) one can see how a compensation committee could be led to a fixed-share scheme rather than fixed-value option award plan. Suppose we award the CEO 100,000 options this year, the stock price doubles, and we award him 50,000 options the following year to keep the cost the same. How do we deal with the claim that we are penalizing him for success? Indeed, dealing with this conflict is almost impossible if we refuse to calculate the grant-date dollar value of the option award and continue to argue that there is no cost to the firm of option awards.

The perception that options are nearly free to grant is readily acknowledged by practitioners and compensation consultants, but is usually dismissed by economists because it implies systematic suboptimal decision-making and a fixation on accounting numbers that defies economic logic. But managers often respond to accounting concerns in ways that seem irrational to economists, and in a way that is consistent with the notion that it is very common for top managers and boards to be ignorant of what truly creates value in the firms they serve.

As an instructive case study, consider what happened when the Financial Accounting Standard Board (FASB) changed the accounting treatment for anticipated post-retirement healthcare liabilities.[28] Historically, the annual costs of retiree medical benefits were reported on a "pay-as-you-go" basis in company financial statements.[29] In February 1989, FASB issued an "exposure draft" of a proposed rule change that would force companies to record a current accounting charge for anticipated future medical costs (bringing accounting for retiree medical benefits in line with the current treatment for pension benefits). In December 1990, FASB issued

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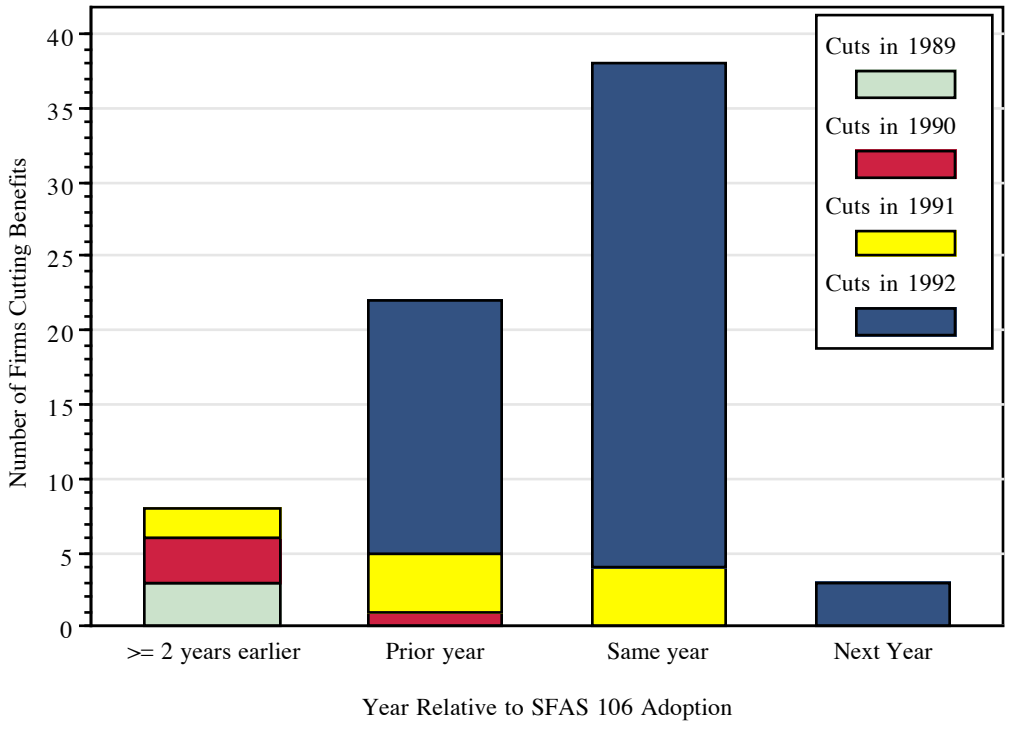
[28] The discussion of retiree healthcare costs draws on Amir, 1993, "The Market Valuation of Accounting Information: The Case of Post-retirement Benefits other than Pensions", *The Accounting Review,* V. 68, No. 4: pp. 703-724; Espahbodie, Strock and Tehranian, 1991, "Impact on Equity Prices of Pronouncements Related to Nonpension Postretirement Benefits", *Journal of Accounting & Economics,* V. 14, No. 4: pp. 323-346 and Mittelstaedt, Nichols and Regier, 1995, "SFAS No. 106 and Benefit Reductions in Employer-Sponsored Retiree Health Care Plans", *The Accounting Review,* V. 70, No. 4: pp. 535-556.

[29] Prior to 1984, the annual costs of retiree medical benefits were included along with other compensation-related expenses and not separately reported in financial statements. In late 1984 FASB mandated separate disclosure of retiree medical costs (SFAS 81: *Disclosure of Postretirement Health Care and Life Insurance Benefits*), but did not change the underlying accounting treatment.

a slightly modified version of the exposure draft as SFAS 106 (*Employers' Accounting for Postretirement Benefits Other than Pensions*) and required firms to adopt the new standards no later than 1993.

Once adopted, SFAS 106 would reduce reported income for companies with high anticipated future retiree health-care costs (relative to the current "pay-as-you-go" costs) and increase reported income for companies with relatively lower future costs. However, SFAS 106 had no direct cash-flow effects: companies could continue funding retiree health-care costs without changing any current or future cash flows. Nonetheless, a significant number of firms rushed to reduce their benefits. Figure 8 makes it clear that the timing of the cuts was no accident. Some 89% of the firms making benefit cuts did so within a year of adopting SFAS 106. The new accounting rule apparently increased the perceived cost of these benefits, putting them more in line with their actual economic cost, and as a result companies reduced benefit levels.

Figure 8 Firms timed reductions in retiree healthcare benefits to boost reported accounting earnings



Source:Mittelstaedt, Nichols, and Regier (1995), Table 2.

The disappearance of option repricing also illustrates how companies respond to accounting rules that have no affect on company cash flows. This common, but controversial, practice virtually disappeared after December 1998, when FASB imposed an accounting charge

for repriced options (see Murphy (2003), and Carter and Lynch (2003)). Many companies with declining stock prices circumvented the accounting charge on repriced options by canceling existing options and re-issuing an equal number of options after waiting six months or more (Zheng (2003)). But this replacement is not neutral. It imposes substantial risk on risk-averse employees since the exercise price is not known for six months and can conceivably be *above* the original exercise price. In addition, canceling and reissuing stock options in this way provides perverse incentives to keep the stock-price down for six months so that the new options will have a low exercise price. All of this to avoid an accounting charge that has no affect on the firm's real costs?

From the perspective of many boards and top executives who perceive options to be nearly costless, the relevant "cost" of options in practice is the trouble associated with obtaining shareholder approval for additional grants coupled with the cost of additional dilution. Advisory firms often base their shareholder voting recommendations primarily on the option "overhang" (that is, the number of options granted plus options remaining to be granted as a percent of total shares outstanding), and not on the economic cost of the proposed plan. In addition, the number of options granted is included in fully diluted shares outstanding and therefore increased grants will decrease fully diluted earnings per share. These perceived costs vary with the number of options granted, and not with the dollar-value of the grants, and are consistent with the observed excessive focus on the number of options and not their cost to the firm.

We believe that the low-perceived-cost view of options explains why options are granted in such large quantities to large numbers of workers, and also explains why grant-date opportunity cost values rose dramatically and subsequently declined with the stock market as shown in Figure 5. We speculate that as grants for top executives increased (for the reasons offered above), companies faced growing pressure to push grants down throughout the organization (see, for example, Flanigan (1996)). Employees clamored for broad-based grants, as long as other components of their compensation were not lowered. Boards readily succumbed, especially since (prior to changes in exchange listing requirements in mid-2003) shareholder approval was required for plans concentrated among top executives but was *not* required for broad-based plans. In addition, several bills that encouraged broad-based stock option plans were introduced in Congress.[30] As a result of these pressures, the number of options granted (expressed as a

[30] For example, H.R. 5242, 2002, Workplace Employee Stock Option Act of 2002 (To amend the Internal Revenue Code of 1986 to encourage the granting of employee stock options.), U.S. House of Representatives, Boehner; S. 2877, 2002, Rank and File Stock Option Act of 2002 (To amend the Internal Revenue Code of 1986 to ensure that stock options are granted to rank-and-file employees as well as officers and directors), U.S. Senate, (107th Congress, 2nd Session), Boxer and H.R. 2788, 1997, Employee Stock Option Bill of 1997 (To amend the

fraction of outstanding shares) grew modestly (Figure 7). But, the economic cost of these grants to the firm followed general stock-market movements, and therefore grew dramatically through 2000. We can find little or no value-creating rationale for these facts and believe compensation committees and boards can and should take actions to stop it.

Internal Revenue Code of 1986 to promote the grant of incentive stock options to non-highly compensated employees), U.S. House of Representatives, (105th Congress, 1st Session), Houghton.

IV. Corporate Scandals and the Agency Costs of Overvalued Equity[31]

The recent wave of corporate scandals has been associated with the ruination of many fine companies, record numbers of senior executives going to jail (See D'Avolio, Gildor, and Shleifer (2002)), and a major decline in the public view of business and corporate executives. More will come before this period is over. The scandals have highlighted the failure of governance systems and motivated substantial new regulations such as the Sarbanes-Oxley legislation in the US, new regulations of accounting practices, and new rules by exchanges such as the NYSE and NASD. In 2002, the International Accounting Standards Board (IASB) and the US Financial Accounting Standards Board (FASB) held their first joint meeting and have been working together to harmonize accounting regulations. By January 2005, European firms are to have adopted international accounting standards.[32]

Before we can "solve" current problems we must be sure we understand their root cause. The root cause was not that many executives suddenly decided to be crooks, but rather lies with the system in which they were working. (Saying the root cause lies with the system does not mean we absolve the executives involved from personal accountability for their actions.) Paradoxically, the problems arose when the equity of many firms became dangerously overvalued and CEOs, CFOs and boards of directors were caught up in a vicious cycle of ever higher stock values that created forces that caused the destruction of part or all of the core values of their firms — what Jensen (2002) characterizes as the "agency costs of overvalued equity." These costs result from the damaging managerial and organizational incentives created when a firm's equity becomes substantially overvalued. By substantially we mean not 10 percent but 100 or 1000 percent as was true for many companies in the recent bubble.

Equity is overvalued when a firm's stock price is higher than its underlying value. Note that *by definition* a firm whose stock is substantially overvalued will not be able to deliver the performance the market expects to justify that valuation. The situation faced by managers and the board of such a company is fraught with confusion and mixed signals that makes it extremely

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[31] This section draws heavily on Jensen, 2002, "The Agency Cost of Overvalued Equity and the Current State of Corporate Finance (Keynote Lecture European Financial Management Association)", June 2002, London (available from the Social Science Research Network eLibrary at:http://ssrn.com/abstract=590961); Jensen, 2004, "Agency Costs of Overvalued Equity", Negotiations, Organizations and Markets (NOM) Working Paper No. 04-26, and European Corporate Governance Institute (ECGI) Working Paper No. 39/2004, May (available from the Social Science Research Network eLibrary at: http://ssrn.com/Abstract=480421).

[32] "FASB Backs Project to Study Unification of Accounting Rules", 2002, *Wall Street Journal,* October 3 and Weil, 2003, "Fixing the Numbers Problems -- Accounting Standards Board Takes on Hot-Button Issues in Timely Manner", *Wall Street Journal,* January 13, p. C1.

difficult to limit the destruction of the core value of the firm — especially when coupled with a general lack of understanding of the dangers of overvaluation.

In part, the massive overvaluation of equity that occurred in the late 1990s and early 2000s was an understandable market mistake. Society often seems to overvalue what is new — in this case, high-tech, telecommunications, and internet ventures. But this catastrophic overvaluation was also the result of misleading data from managers, large numbers of naïve investors, and breakdowns in the agency relationships within companies, in investment and commercial banks, and in audit and law firms many of whom knowingly contributed to the misinformation and manipulation that fed the overvaluation.

Managerial and Organizational Heroin

Like taking heroin, manning the helm of an overvalued company feels great at first. Like heroin for an addict, overvalued equity generates highly misleading signals for an organization and its board and managers. The capital markets (both equity and debt) are wide open to such a firm. Its managers are likely to get much favorable media attention and their equity-based compensation is contributing to greatly increased personal wealth. But as drug users learn, massive pain lies ahead.

It becomes ever more clear to the managers of such organizations that it is difficult to generate the performance necessary to support the sky-high stock price. And knowing that the market will hammer the stock price if it becomes clear the expected performance will not be realized, managers begin to take actions that will at least appear to generate the required performance. They use the firm's overvalued equity as currency to make acquisitions to satisfy growth expectations. They use access to cheap capital to engage in excessive internal spending in risky greenfield investments. They make increasingly aggressive accounting and operating decisions that shift future revenues to the present and current expenses to the future. Eventually when these fail to resolve the issues, managers, under incredible pressure, turn to further manipulation and even fraud.

None of these actions truly improve performance. In fact when they are taken not to create real value, but to give the impression of value-creating growth, they destroy part or all of the firm's core value. But such value destruction is not immediately obvious because in situations like these the market can be fooled during the time it takes for the actual results to be fully revealed. But how can a CEO and CFO argue persuasively to their board that they must take action to *reduce* the price of the stock? That is especially difficult in a world in which managers

and boards have not learned effectively that long-run firm value creation does not necessarily mean maximizing the price of the stock.

Let's understand in more detail the situation such managers find themselves in with their board. Consider Enron. Our guess is that at its peak value of about $70 billion, Enron was actually worth about $30 billion. It was an innovative company with a good business, but it was not nearly as good a business as some argued. For example, one analyst at Deutsche Bank Alex, Brown went so far as to predict that Enron "…would dominate the wholesale energy market for electricity, natural gas, coal, energy derivatives, bandwidth, and energy services on three continents."[33] Enron's management could have helped the market reduce its expectations. They could have found the courage to reset the company's value. Instead, in choosing to defend the $40 billion overvaluation (which was going to disappear anyway) they destroyed the entire $30 billion core value of the company.[34]

But imagine the typical board's response if a CEO says, "we have to reduce the market value of our company by $40 billion." Investors in the company are not going to see this as a value resetting, a mirage, that was going to go away anyway. They will see it as a real value loss. The board meanwhile, has no clear understanding of the overvaluation, and how defending it destroys part or all of the real core value of the firm. Couple this with the board's clear understanding of the massive pain associated with resetting the firm's market value, and it is not surprising that few boards or managers mustered the courage to resist the pressure to defend the overvaluation. Indeed, most CEOs making this argument to the board would probably be fired with the mantra that "if you can't do it we'll get someone who can". The situation is particularly bad in times like we recently went through in the technology, telecommunications and dot-com sectors where so many firms were dramatically overvalued. Such common overvaluation makes it even more difficult to distinguish it for a particular firm because it is easy to point to competitors and conclude that they are managing to deliver the value the market expects. And as boards in these industries now have seen, those competitors weren't succeeding either.

Because top managers and board members have not had the language to talk about the dangers of overvalued equity, few have fully understood it. And even those who have sensed the problem have been unable to stop playing the game. When eToys' stock price rose dramatically on its first day of trading on the NYSE in May 1999, CEO Toby Lenk, reportedly said to his

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[33] Tirello, 2000, "Enron Corporation: The Industry Standard for Excellence", Analyst Report, Deutsche Banc Alex Brown, September 15, 2000, New York .

[34] See Swartz and Watkins, 2003, *Power Failure: The Inside Story of the Collapse of Enron*, New York: Doubleday

CFO, "This is bad. We're going to live to regret this."[35] An interesting comment given that the value of Lenk's stock had just reached $850 million on the opening day.

Lenk knew something was wrong, but he and his management team (undoubtedly pushed by those who had to prolong the stock price fall until they could sell) built the capacity to support $500 million in sales, and advertised similarly. But sales peaked at $200 million and in February 2001, just 21 months after that first day of public trading the company filed for bankruptcy and was eventually liquidated.[36] This did not have to happen.

Failed Governance and Failed Incentives

The market for corporate control solved many of the problems of undervalued equity in the 1970s and 1980s through hostile takeovers, leveraged buyouts, and management buyouts. It could not, however solve the agency problems of overvalued equity. It is difficult, to say the least, for an outsider to buy an overvalued company, eliminate its overvaluation and make a profit.

In addition, equity-based compensation through options, restricted, unrestricted or phantom stock holdings by executives could not solve the problem either. In fact, in the presence of significantly overvalued equity such equity-based incentives are like throwing gasoline on a fire — they make the problem worse, not better.[37] This is but one example of problems that cannot

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[35] Sokolove, 2002, "How to Lose $850 Million -- And Not Really Care", *New York Times Magazine,* June 9.

[36] There were many eToys type experiences. See the story of TheStreet.com, chronicled in Cramer, 2002, *Confessions of a Street Addict*, New York: Simon & Schuster. Originally slated to go public for $9 to $11 per share, shares in TheStreet.com opened at $61 per share and reached $70 early in its first trading day on May 11, 1999. Its stock never rose from its opening day, falling to $20 per share by year-end 1999 and to $3.00 per share by year-end 2000. In an attempt to placate analysts and keep the stock high, CEO Kevin English advocated spending money to buy up other internet companies and began expansion into Europe. English was fired in November 1999 (walking away with a large grant of fully vested stock). The new CEO came in and immediately slashed expenses, fired hundreds of employees, and dismantled the European operation.

[37] Consistent with thisEfendi, Srivastava and Swanson, 2004, "Why do corporate managers misstate financial statements? The role of option compensation, corporate governance, and other factors", unpublished working paper, Mays Business School, Texas A&M U., May 17, College Station, Texas (available from the Social Science Research Network eLibrary at: http://papers.ssrn.com/abstract=547922) in their recent study of 100 firms who restated their earnings in 2000 and 2001 document that firms with CEO's who have large amounts of "in-the-money" options are much more likely to be involved in restatements. Indeed, as compared to their control sample of 100 matched firms with no restatements the average value of in-the-money options for CEOs of restating firms is $30.1 million vs. $2.3 million for the no-restatement firms. Erickson, Hanlon and Maydew, 2003, "Is There a Link Between Executive Compensation and Accounting Fraud?" University of Chicago Working paper, October 3, 2003, Chicago, IL find that the higher the proportion of stock-based compensation to total compensation for the 5 highest paid executives, the greater the likelihood of accounting fraud. (Stock-based compensation is defined as the sum of the Black-Scholes value of current year stock option grants and the market value of restricted stock grants. Total compensation includes stock-based compensation, salary and bonus.) They find, for example, that stock-based pay accounts for an average of 56 percent of total pay for the top five executives in firms accused of fraud, but only 41 percent in firms not accused of fraud. See also Harris and Bromiley, 2004, "Incentives to Cheat: The Influence of

be solved by compensation/incentive systems alone. There will always be issues that require good control systems and monitoring by principled people in a well-designed governance system.

Some have argued we should dramatically reduce or prohibit managers from holding equity; see[38]. We believe it unwise to return to the old days in which managers were paid like bureaucrats and all the problems associated with that situation.[39] As we've said above, all compensation schemes have the potential to both reduce and to increase agency problems. Many, but not all of the problems with equity-based compensation can be traced to the lack of required long-term horizons that can be resolved through effective holding-period constraints and other policies that are discussed below.

Thus, in the end, the only solution to the agency problems of overvalued equity is an effective corporate governance system. And we witnessed massive failure in which the boards of directors of company after company failed to stop the charades that eventually led to corruption and the associated destruction of organizational value. Many scholars have warned for decades that corporate governance systems were woefully inadequate. The results of the last few years have substantially buttressed this position and have led to widespread re-examination and calls for reform of governance systems that basically leave top management in many organizations effectively unmonitored.

CEO Incentive Compensation and Relative Firm Performance on Financial Misrepresentation", Univ. of Minnesota Carlson School of Management Working Paper, ; Johnson, Ryan Jr. and Tian, 2004, "Executive Compensation and Corporate Fraud", Ourso College of Business Administration Working Paper, May, Louisiana State University (available from the Social Science Research Network eLibrary at: http://ssrn.com/abstract=395960).

Firms that are more likely to require external financing are also more likely to commit accounting fraud. Although not always significant in their statistical models, they also uncover evidence that the weaker the corporate governance system (as indicated when the same person holds the CEO and chairman titles), the more likely the fraud.

[38] Martin, 2003a, "Taking Stock: If you want managers to act in their shareholder's best interests, take away their company stock", *Harvard Business Review,* V. 81, No. 1: p. 19; Martin, 2003, *The Wrong Incentive: Executives Taking Stock Will Behave Like Athletes Placing Bets* Barron's Online, (An electronic version is available at: http://online.wsj.com/barrons/article/0,,SB107187920976382100,00.html)

[39] Frey and Osterloh, 2004, "Yes, Managers Should Be Paid Like Bureaucrats", University of Zurich, March, Zurich take the opposite view.

R-6. High equity-based compensation for management requires increased monitoring by the board and compensation and audit committees of reporting policies and the company's relations with the capital market in general.

Because incentives are greater in the presence of high equity-based compensation (both to increase value and to avoid destruction of value), boards must understand that additional monitoring is likely to be required. Because of the increased benefits of manipulating financial reports and/or operating decisions to pump up the stock and therefore generate larger payoffs in the short term, compensation and audit committees must increase their monitoring. In addition, they should pay careful attention to ensuring that their managers cannot benefit from short-term increases in stock prices that are achieved at the expense of long-term value destruction.

The Solution?

It might well be impossible to solve the overvaluation problem once it occurs. The real solution is to stop it from happening in the first place. This means going against the universal human reluctance to endure short-term pain for long-term benefits. We must refuse to play the earnings-management game.[40] We must refuse to contribute to the problem by hyping our stock to analysts. This means that as managers and board members we must stop creating and consuming the overvaluation heroin.

R-7. If our company's stock price starts to become overvalued we must resist the temptation to enjoy and encourage it. We must make sure that we are communicating to the markets the information regarding the firm's current and long run health and prospects.

Management and the board should not be in the business of telling the markets what value is. That is for the markets and the analysts to determine. Management must be accountable for informing markets on the firm's strategy and its progress (or lack of it) on executing it. Managers must work to make their organizations far more transparent to investors and to the markets.[41] Companies should state their strategies clearly, identify the relevant value drivers and report auditable metrics on their progress in executing the strategy. This reporting should address that part of the firms share price not directly linked to observable cash flows through a clear description of the growth opportunities they foresee and a willingness to tell the markets when they perceive their stock price is overvalued.

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[40] For a more extensive discussion of these issues and recommendations see Fuller and Jensen, 2002, "Just Say No To Wall Street: Putting A Stop To the Earnings Game", *Journal of Applied Corporate Finance,* V. 14, No. 4, Winter 2002: pp. 41-46 (available from the Social Science Research Network eLibrary at: http://ssrn.com/Abstract=297156).

[41] Diller, CEO of USA Networks, provides analysts with actual budgets broken down by business segments.

R-8. Audit committees and boards should establish regular communication with substantial short sellers of the company's stock.

Those who have bet their own money on the future decline of a company's stock are potentially valuable sources of information regarding potential overvaluation of our firm. Therefore the board and particularly the audit committee should be very interested in hearing the logic behind short sellers actions. There may be good reasons why the board and committee choose to ignore such information after evaluating it (for example, some short sellers might have an interest in disseminating incorrect information so as to profit in the short run), but it would be foolhardy not to be informed of the views of short sellers of our securities. This will require a substantial change of attitude in most boards and management teams where short sellers are commonly thought of as the "enemy".[42]

R-9. Business educators, while teaching students the desirability of maximizing value, must also teach them about the dangers of overvaluation. Maximizing firm value does not mean maximizing the price of the stock.

[42] We are indebted to Jeff Skelton for pointing out the potential value of communications with short sellers.

V. Executive Compensation as an Agency Problem

While compensation can be a solution to agency problems, it can also be a source of agency problems. However well intentioned, boards and compensation committees are not spending their own money, so there is an agency problem between boards and the company that they are there to represent. In addition, even the best-designed plans contain exploitable flaws, and because they have a huge information advantage clever executives can inevitably manipulate the compensation process to benefit themselves at the expense of the company if they choose to do so. In this section, we identify several widespread problems with pay processes and practices, and suggest changes in both corporate governance and pay design to mitigate the problems.

Problems with the Appointment and Pay-Setting Process

A primary role of boards of directors is to hire, fire, and set the compensation of the CEO and other top executives. Most large public corporations have compensation or compensation committees charged with evaluating the CEO's performance and making recommendations relating to executive pay. In our experience, compensation committee members approach their jobs with good intentions, intelligence, and integrity, but are not as diligent as they would be if they were spending their own money. In addition, compensation committees routinely lack the information, expertise and negotiating skills necessary for hard-nosed contract negotiations with incumbent and incoming executives. As a result, executive contracts are almost inevitably tilted towards the benefit of top executives. In this sub-section, we identify several of the problems and root causes of the appointment and pay-setting process.

How pay decisions are made

Although all major decisions related to top-level pay are passed through the compensation committee, the committee rarely conducts market studies of competitive pay levels or initiates or proposes new incentive plans, and only seldom retains its own compensation experts. Rather, initial recommendations for pay levels and new incentive plans typically emanate from the company's human resource department, often working in conjunction with outside accountants and compensation consultants. These recommendations are usually sent to top managers for approval and revision before being delivered to the compensation committee for consideration. The CEO typically participates in all committee deliberations, except for discussions specifically dealing with the level of the CEO's pay. The committee either accepts the recommendations or

sends them back for revision. If accepted, the committee passes its recommendations on for approval of the full board of directors.

Compensation committees, which typically meet only six to eight times a year, lack both the time and expertise to be involved in the minutia of performance evaluation and pay design. The fact that initial recommendations are made by company management and not by the compensation committee may be an efficient outcome given the time and resource constraints faced by the committee, but it calls into question the integrity of the compensation process. The fact that the committee only sees plans that have already been "blessed" by top managers creates an environment that invites abuse and bias. Put differently, although individual committee members are generally competent and well motivated, the governance system itself is corrupted and tilted in the direction of management in a way that will almost inevitably lead to excesses in executive pay levels.

R-10. Compensation committees must take full control of the compensation process, policies, and practices.

> In particular compensation committees should jealously guard their initiation rights over executive compensation. They must abandon the role of simply ratifying management's compensation initiatives. Obviously guarding their initiation rights does not mean that committees should make decisions and recommendations to the whole board without discussions with management, but this is quite different from allowing management to *de facto* seize the compensation initiation rights. Compensation committees can ask for data or information from corporate human resource officers, but these officers should report directly to the committee (and not to top management) for committee-related assignments. Similarly, compensation consultants should be hired by, and report directly to, the compensation committee and not to management.

Pay negotiations and the market for CEOs

Compensation committees almost invariably pay "too much" for newly appointed CEOs, especially for those hired from outside the firm. Corporate directors seeking new CEOs from outside typically hire a professional search firm to identify qualified candidates for the position (Khurana (2002a, b)). The pool of qualified candidates is narrowed through extensive research, background and reference checks, and interviews until a single individual is selected for the position. Negotiations over pay typically begin only after the favored candidate is identified and told that he is to be the new CEO. At this point the board is anxious to secure his services, and the combination of these two factors dramatically shifts the bargaining power to the seller (the candidate) rather than the buyer (the firm). This procedure is a reasonable way to identify top

candidates when "price" is not an issue, but is clearly a recipe for systematically paying too much for managerial talent.

The tendency to pay too much and to pay it in the wrong way is exacerbated by potential CEOs who hire skilled contract agents to negotiate on their behalf. The most famous hired negotiator in the US is Joseph Bachelder, who charges close to $1,000 per hour to extract as much as possible from the company in the form of salaries, target (and often guaranteed) bonuses, option grants, retirement benefits, perquisites and generous severance arrangements.[43] Mr. Bachelder is especially proficient in extracting high "sign-on bonuses" to offset unvested options and benefits from the candidate's former employer. In a final bit of irony, Bachelder routinely negotiates for the company to pay his fees, which can run as high as $100,000 for a single contract. It is not hard to see how what a CEO asks for can easily escalate when he or she is not personally doing the asking, and when the agent is urging the candidate to not ask for less than the maximum the agent knows has been obtained by anyone else remotely comparable in the country.

In such an environment it is not surprising that agents such as Mr. Bachelder increasingly represent executives. In contrast, compensation committees rarely retain their own expert negotiators. The outcome is a clear mismatch: no matter how well intentioned, the typical compensation committee is no match against a professional negotiator, and generous pay packages become ubiquitous. But, sometimes the problem is worse: the incoming CEO (and his professional agent) negotiate not with the compensation committee but rather with the company's general counsel or head of human resources. These internal managers know they will report to the CEO when the contracting is complete, providing strong incentives to make their new boss pleased with his financial arrangements and making it very difficult for them to play hardball in the negotiations knowing that any residual anger will unlikely disappear once the deal is concluded. For example:

> . . . Mr. Bachelder takes private delight in spotting the other side's weaknesses during negotiations. "Joe took me aside after one contract," says Michael Valentino, an executive who has worked at several drug companies, "and told me: 'I knew on Day One that we were going to get everything you wanted.' "When Mr. Valentino asked why, Mr. Bachelder told him that the hiring company had mistakenly put its general counsel in charge of the talks. "When this is over, you're going to be that guy's boss," Mr. Bachelder explained. "He knows that. He can't fight you too hard on anything." Anders (2003).

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[43] Information on Mr. Bachelder is drawn from Anders, 2003, "Upping the Ante: As Some Decry Lavish CEO Pay, Joe Bachelder Makes It Happen", *Wall Street Journal,* June 25, p. A1; Kampel, 2000, "Five Questions for Joseph E. Bachelder, Engineer of the Executive Pay Express", *New York Times,* June 11 and Whitford, 1998, "Becoming CEO? Call Him First", *Fortune*, V. 137, No. 11, June 8, p. 281+.

R-11. Firms should resolutely refuse as a matter of policy to pay the fees for the contracting agents negotiating for the CEO or other top-managers.

Such reimbursements would appear to be a violation of the board's fiduciary responsibility to the firm, and have clearly undesirable incentive effects on managers' decisions to hire such agents and for the aggressiveness and time such agent's spend in the negotiation process.

R-12. Compensation committees should employ their own professional contracting agents when hiring new top-level managers.

It is especially important for the committee to do so when the manager being recruited has hired his or her own agent. The conflicts of interests in such negotiations are high with current managers and even current board members (who quite reasonably wish to bring a new person on board in a climate of cooperation and good will). Therefore, bringing in an outsider who answers solely to the compensation committee to handle much of the details of the negotiation can help put balance back into such negotiations. Moreover, boards should be wary of announcing the new appointment before the terms of engagement have been agreed upon.

Judgment calls go to the CEO

Once we fully appreciate how difficult it is to manage the negotiation process involved in hiring a new and highly desirable CEO from outside the firm, we begin to have an idea how difficult it is to manage the process for a sitting CEO. Everyone in the firm already answers to him and therefore expects to have to continue to work with him after the compensation process is complete each year. And although the committee members do not formally answer to the CEO it is not uncommon for them to behave as if they effectively do in many firms. In addition, neither the board nor the committee wishes to spoil relations with a successful CEO, much less start an internal war over the annual compensation process.

Even after the hiring decision, compensation committees inevitably pay too much. There is little question that judgment calls even in the most well-intentioned boardroom systematically tend to favor the CEO. Faced with a range of market data on competitive pay levels, committees tend to err on the high side. Faced with a choice between a sensible compensation plan and a slightly inferior plan favored by the CEO, the committee will defer to management. Similarly, faced with a discretionary choice on bonus-pool funding, the committee will tend to over- rather than under-fund.

Bebchuk, Fried, and Walker (2002) and Bebchuk and Fried (2003) argue that the recent escalation in executive pay reflects the actions of incumbent executives who can raise their own pay by exercising influence over hand-picked directors. While the factors we have outlined are consistent with their arguments that CEOs will use their power to extract rents from the firm,

their assessment is somewhat overstated, because it cannot explain the dramatic increase in stock options (which, in turn, largely explains the pay escalation). In addition, executives hired from outside the company typically earn higher wages than executives promoted internally, suggesting that poor negotiating expertise on the part of compensation committees may explain more of the increase than captive board members catering to entrenched managers. The inherent biases in the pay-setting process are not easily solved by enhancing board independence (the obvious prescription to solve the problem as framed by Bebchuk-Fried-Walker) but rather require compensation committees to invest in much greater information and negotiation expertise and to change the very structure of the evaluation and pay-setting process. See Murphy (2002) for an extensive discussion of the Bebchuk, Fried and Walker arguments.

Much has been made about the power of CEO's in the boardroom, and much of this discussion focuses on the notion of independence of board members from the CEO and from the company. We agree that independent directors are important to a well-functioning governance system, but we are concerned that this discussion can sometimes miss the point in the larger picture in which the governance function is carried out. In improving the compensation process we must concern ourselves with resolving some of the issues that have been responsible for the failure of governance systems. We make three general recommendations here that we believe are requisite to a well-functioning board and compensation system.

R-13. Change the structural, social, psychological and power environment of the board so that the directors (even those who fulfill the requirements of independence) no longer see themselves as effectively the employees of the CEO

We frame the guideline this way not because it is the cause of the problem, but rather because it is a highly productive frame from which to view the symptoms and causes of fundamental problems with governance. Changing this mindset will not be an easy task. It will require major changes in the social, psychological, and power structures in boards. And when it is accomplished boards will no longer see their role as one of primarily supporting the CEO rather than monitoring the CEO as is so common in the American model. The support role is clearly important but must be strictly subordinate to the board's role as monitor. Consider the following: the CEO does most of the recruiting for the board and extends the offer to join the board. And, except in unusual circumstances, board members serve at the pleasure of the CEO. The CEO generally sets the agenda for the board. Moreover, it is rare that the board meets outside of the CEO's presence or without his explicit permission. Finally, virtually all information board members receive from the company originates from or passes through the CEO, except in highly controlled or unusual circumstances. Changes in these practices will require a major change in the power relationship between the board and the CEO.[44]

R-14. The board should be chaired by a person who is not the CEO, was not the CEO, and will not be the CEO

The critical job of the Chair is to run the process that evaluates, compensates, hires and fires the CEO and top management team. The CEO cannot perform that job adequately.

R-15. Limit the number of outside CEOs sitting on the board

Outside CEOs offer advantages as board members for many obvious reasons. What generally have gone unaddressed are the disadvantages they bring to the board. It is natural for them to subconsciously (if not consciously) view the board through CEO eyes — a lens where the power of the CEO is not seriously challenged, except perhaps in the event of serious problems such as obvious incompetence or malfeasance.

[44] For a more complete discussion of these issues see Jensen and Fuller, 2002, "What's a Director to Do?" *Best Practice: Ideas and Insights form the World's Foremost Business Thinkers,* Cambridge, MA. and London: Perseus Publishing and Bloomsbury Publishing (available from the Social Science Research Network eLibrary at: http://papers.ssrn.com/Abstract=357722).

R-16. The CEO should be the only member of the management team with board membership.

> While members of the management team can add value by participating in board discussions there is little reason to have them be formal voting members. When other members of the management team are voting members of the board we increase the likelihood that the board will consider its job to be that of supporting, not monitoring, the CEO. Members of management that can add value to board discussions can and should do so by being at the meetings regularly as ex-officio members.

The Role of Compensation Consultants

Most companies rely on compensation consultants to provide survey information on industry and market pay practices and to design incentive arrangements. Although these consultants undoubtedly serve a useful purpose, we believe they have also contributed to abuses in executive pay. Compensation consultants are rarely retained by the compensation committee but are rather retained by company management, and work directly for and with the head of human resources, the chief financial officer, or the CEO. Simply put, the client is the CEO, not the compensation committee. This hiring situation creates an obvious potential conflict of interest, since the consultants make recommendations on the pay of the individuals who hire them.

More importantly, many of the largest integrated human resource consulting firms (such as Hay, Hewitt, Towers Perrin, Mercer, WatsonWyatt, etc.) receive fees from their actuarial or (lower-level) employee pay practices that are orders of magnitude larger than the fees charged by their executive pay practices. Decisions to engage the consulting firm in these more lucrative firm-wide practice areas are often made by the same top executives who are affected by the consultant's executive pay recommendation. These prospects for cross-selling other services dramatically increase the conflicts of interest faced by the compensation consultants, the top-level executives, and the firm. It is not realistic to expect a management compensation consultant to aggressively argue against overpaying a CEO who the consultant knows is going to rule on hiring him to perform a vastly more lucrative actuarial or rank and file consulting contract.

R-17. Compensation committees should seldom, if ever, use compensation consultants for executive compensation purposes who are also used by the firm for actuarial or lower-level employee compensation assignments.

> Conflicts between these dual roles of compensation consultants dramatically disadvantage the compensation committee and the firm and facilitate more-generous executive pay packages. Consider the situation of a consultant who hopes to close a multi-million dollar actuarial or lower-level employee engagement. The same consultant engaged as an advisor on CEO and top-manager compensation policies (that might amount to only a high five-figure or low six-figure fee) would be put at a significant disadvantage in recommending value-creating compensation policies inconsistent with what the CEO desires. The reasons for avoiding these conflicting roles are essentially the same as the rules that are emerging that limit the use of a firm's auditor as a consultant.

Companies retain compensation consultants in large part to get access to survey information used for competitive "benchmarking." The surveys, which report a variety of pay percentiles (*e.g.,* 25^{th}, 50^{th}, 75^{th}), typically adjust for company size either through size groupings or through simple log-linear regressions of Log(Pay) on Log(Size). Size is traditionally measured using company revenues, although market capitalization is increasingly used (especially in start-ups with low revenues but high capitalization). As suggested by Baker, Jensen, and Murphy (1988), the size adjustments used in the survey instruments both formalize and reinforce the observed relation between compensation and company size. In other words, what starts out as a simple empirical correlation between size of firm and size of compensation for top-level managers is turned into a causal mechanism that rewards managers for increasing the size of the firms they lead even though they may destroy value in doing so. We have no doubt that these factors coupled with the increase in power, visibility and other non-pecuniary benefits associated with larger size play a role in reducing managerial willingness to shrink a firm when that is the value-creating action and similarly increase the motivation to grow a firm even when it destroys value.

In addition, we believe that misuse of survey information provided by compensation consultants has led to systematic increases in executive pay levels. Language is powerful and especially so if we are unaware of the nuances of labels. Since pay below the 50th percentile is often labeled "below market" while pay between the 50th and 75th is considered "competitive," the surveys have contributed to a "ratchet" effect in executive pay levels as firms choose to target

their pay above the 50th percentile. The result is the CEO equivalent of the Lake Wobegon effect: all CEOs are paid above average (or at least try to be).[45]

Problems with Equity-Based Plans

The primary forms of equity-based compensation are stock options, restricted stock, and performance shares. Stock options are contracts that give the recipient the right (but not the obligation) to buy a share of stock at a pre-specified price (called the "exercise" or "strike" price) for a pre-specified term. Conceptually, the exercise price can be set above, below, or at the grant-date share price, or can vary over time with inflation or movements in broad stock indices or with the firm's cost of capital. The standard practice in both the United States and the United Kingdom is to fix exercise prices at the grant-date share price. Options in the US typically are granted with terms of 10 years; in the UK option maturity terms range between 7 and 10 years. Stock options are usually not exercisable immediately at grant, but rather only become exercisable with the passage of time and/or the attainment of performance thresholds. The standard practice in the US is for options to "vest" and become exercisable over time independent of performance,[46] while options in the UK often include performance criteria. Employees leaving the firm are typically allowed to exercise vested options upon their termination, while unvested options are forfeited.

Restricted stock grants are "restricted" in the sense that the recipients cannot sell or transfer the shares for a period of time, and will forfeit the shares if they leave the firm prior to vesting. Performance shares are essentially a promise for future delivery of shares, conditional on continued employment (like restricted stock) and on meeting various performance thresholds. Both restricted stock and performance share plans are common in the US, although their prevalence is much lower than stock option plans. The standard practice in the UK is to grant performance shares (often called "Long-Term Incentive Plans" or LTIPs) and not restricted stock; indeed, in recent years, LTIPs have replaced options as the predominate form of equity-based pay among UK CEOs.

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[45] Lake Wobegon is the fictional Minnesota setting for radio entertainer Garrison Keillor's tales and yarns. He concludes each weekly show with, "That's the news from Lake Wobegon, Minnesota where all the women are strong, all the men are good-looking, and all the children are above average." See http://www.prairiehome.org.

[46] Some US plans accelerate vesting for superior performance, but the options will vest independent of performance as long as the recipient remains employed by the firm throughout the option term.

Closely related to equity-based plans are cash plans that replicate the payouts from stock plans. For example, "stock appreciation rights" give recipients the right to the spread between the market price of the stock and the exercise price, and thus replicate the payouts from stock options. Phantom stock plans give recipients the value of shares at some future date, subject to continued employment and/or performance criteria, and thus replicate the payouts from restricted stock and performance share plans. These cash plans are particularly popular in non-public and closely held corporations, where traditional stock-based plans are impossible or unattractive.

Equity-based incentive plans seem a natural if not obvious way to align the interests of managers with those of shareholders. However, poorly designed or implemented equity-based plans can yield excessive levels of compensation and provide incentives to destroy rather than create organizational value. In the remainder of this section, we discuss several common problems in equity-based plans, drawing in large part on themes developed earlier in this report.

No skin in the game

Conceptually, companies offering restricted stock or options could reduce base salaries (or other components of compensation) to partially offset their cost, or alternatively could explicitly require the executive to buy the stock or options using personal funds.[47] In practice, however, equity-based pay is often layered on top of existing competitive pay packages without requiring any meaningful offset (through direct payments or reductions in other compensation). The temptation to offer options or stock without an offset follows from the observation (discussed in Section 3) that boards perceive these instruments to be effectively "free" to grant.[48] The obvious result of this practice is that executives are systematically overpaid. Once enough companies offer "free" but valuable stock and options they become part of the "competitive" pay package that all firms have to offer to attract scarce managerial talent. The end result is a ratcheting-up of pay driven by an escalation in equity-based incentives.

A less obvious but potentially more important result is that providing stock and options as an "add-on" erodes the incentives associated with equity-based pay. It is human nature to care more about something purchased through sweat or hard-earned cash than something received for free. Moreover, managers who purchase shares will naturally recognize the opportunity cost of

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[47] In either case, the cost to the firm will not be completely offset by the contribution from the manager because (as discussed in Section 3) risk-averse executives will generally value stock and options less than they cost the company to grant. This will not be true when managers have information that leads them to believe that they can create value.

[48] Restricted stock is perceived to be more costly to grant than options, because companies granting stock incur an accounting charge equal to the grant-date value of the stock amortized over the vesting period. However, companies can grant stock without spending any cash, which makes stock seem cheaper than cash-based forms of pay.

the shares and will strive to earn a fair return on their investment. For example, suppose that a manager purchases $100,000 in stock with his own funds, and that his alternative investment opportunities for the money (with the same risk characteristics as the company stock) offer an expected return of 10 percent. This manager will be likely to recognize that, if the shares appreciate by $5,000 in one year, he has earned a poor return on his investment and has lost money relative to the opportunity cost of his capital. In contrast, suppose that the company simply gave the manager $100,000 in stock vesting in one year. If the shares appreciate by $5,000, the manager has lost nothing and in fact walks way with $105,000 worth of shares given to him for free. Indeed, even if the shares lose 5 percent in value, the manager will still end the year with a gift worth $95,000. Thus outright stock grants are very expensive and provide no incentives to self select out of the firm when managers believe they cannot create value.

R-18. Managers should be required to have "skin in the game" by purchasing stock or options or by explicitly and deliberately accepting reductions in other forms of compensation.

> Important advantages to requiring managers to have skin in the game is that it encourages them to recognize the opportunity cost of capital to the company and to reveal the private information and beliefs they have about the value-creation potential in their strategic plan. If managers are not willing to bet their own money on the plan, it is probably not a good bet for the shareholders either.

Managers can get skin in the game through outright purchases of stock and options using after-tax dollars. Historically, such purchases have often been financed through loans provided by or guaranteed by the company. We see nothing wrong with such loans, even when offered on a non-recourse basis, provided that the executive is required to put up a sizable down payment and that the loan carries an appropriate interest rate (approximating the company's cost of capital). However, as a response to some high-profile abuses involving loans at a handful of companies, the Sarbanes-Oxley Act now mistakenly forbids US companies from providing or guaranteeing loans to its top executives.

As an alternative to using after-tax dollars to purchase equity, executives can get skin in the game through exchange programs that offer stock options in lieu of cash compensation. In order to provide incentives to both recognize the cost of capital and reveal confidence in the strategic plan, these exchange programs must be explicit: it must be clear to all parties what the executive is giving up. Although exchange programs in practice take a variety of forms, most involve exchanging cash bonuses or current or future increases in base salaries for restricted stock or

options.[49] Executives participating in exchanges typically receive a "risk premium" for accepting equity-based pay rather than cash. Since executives are risk averse, it is natural for them to expect a compensating differential for accepting riskier pay. However, executives demanding excessive risk premiums are likely signaling a lack of confidence in their business strategy rather than risk aversion, and compensation committees will do well to pay particularly careful attention to such information (more on this below).

Problems with traditional stock options[50]

Traditional stock options, granted as an add on with a fixed exercise price equal to the grant-date market price, are especially prone to misleading executives into thinking that the cost of equity capital is zero. To illustrate how traditional options can reward managers even when value is destroyed, we offer an example based on a real boardroom situation that occurred in a Fortune 500 company a number of years ago. In its board strategy presentation the top-management team of the company informed the board that if it ratified the strategy the stock price of the firm would rise from its current price of $57 per share to $100 per share in five years. The board and management had already agreed that the cost of equity capital for this company was 15 percent and the company regularly paid an annual dividend of about 2.5 percent per year (based on the beginning-of-year stock price).

Given these assumptions, the breakeven value of the equity in five years that leaves shareholders whole (just earning their cost of equity capital net of dividends) would be $102.72 = $57(1.125)^5. So if management's projection of a stock price of $100 in five years were true, shareholders would lose $2.72 per share (measured in dollars five years in the future). Thus, the plan, if executed perfectly, would destroy shareholder value because if the market believed that the plan would be realized and that the management's $100 forecasted stock price would be the result, the current stock price would fall to $100/(1.125)^5 = $55.49, an immediate loss in value of $1.51 per share. But the manager's options awarded at the current market price of $57 per share would in five years be worth $43 = $100 - $57 per share on exercise. Thus, shareholders would lose money while managers would make $43 per share. We would be paying managers handsomely to destroy value for shareholders.

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[49] Some US companies recently completing such exchanges include ADC Telecommunications, Arkla, Avon, Baxter, Black & Decker, Clorox, EKCO, General Mills, Harnischfeger, International Multifoods, Mead, Merck, PacifiCorp, Panhandle Eastern, Santa Fe Pacific, Sun Company, Teledyne, Toro, Triarc, Union Carbide, United Airlines, and USAir.

[50] This material follows that of Jensen, 2001a, "How Stock Options Reward Managers for Destroying Value and What To Do About It", Harvard Business School Negotiations and Markets (NOM) Working Paper, April 17, 2001 (available from the Social Science Research Network eLibrary at: http://ssrn.com/Abstract=480401)

Another way to see this is that the typical executive stock option program effectively communicates to managers that the cost of equity capital to the company net of the dividend yield is zero and therefore encourages the waste of capital. Even though one board member in the example discussed above pointed out that this was a value-destroying plan even if executed perfectly (and most board members believed the $100 price was far too optimistic), the board approved the plan anyway. It did so because management did not know what else to do and the board was unable to agree on a solution. After several more years of value destruction the board removed the CEO.

Unfortunately the problems created because option plans typically teach executives that the cost of capital is zero (or the dividend yield for a dividend paying company), is compounded because most executive stock options do not adjust the exercise price for dividends on the stock. Because paying dividends lowers the value of options dollar for dollar non-dividend-adjusted options thus provide managers incentives to avoid paying dividends or to pay only nominal dividends.[51] Unless managers use the excess cash to buy back stock (and there is some evidence they do) the result is they keep excess capital (free cash flow) in the firm rather than paying it out, and this destroys more value.[52]

R-19. Executive share option contracts should, whenever possible, adjust the exercise price of the option for any dividends or return of capital paid to holders of the shares.

This removes any artificial incentives that managers have to withhold dividends when they have options.

Cost of Capital Adjusted Options

One solution to the problem associated with fixed-exercise-price options is to change the nature of executive stock options so that they teach managers what the true cost of capital is. In his article "Remaking the Corporation from Within" Bennett Stewart (1990) recommends awarding managers options whose exercise price rises at the cost of capital net of the dividend

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[51] Lambert, Lanen and Larcker, 1989, "Executive Stock Option Plans and Corporate Dividend Policy", *Journal of Financial and Quantitative Analysis,* V. 24, No. 4: pp. 409-425 find that "expected dividends" decrease following the initial adoption of top-management stock option plans. Lewellen, Loderer and Martin, 1987, "Executive Compensation and Executive Incentive Problems: An Empirical Analysis", *Journal of Accounting & Economics,* V. 9, No. 3: pp. 287-310 find that dividend payout ratios are negatively (but not significantly) related to CEO stock-based compensation.

[52] Free cash flow is all cash in excess of that required to fund all positive net present value investments. By definition such cash must be paid out in order to avoid destroying value. See Jensen, "Agency Costs of Free Cash Flow: Corporate Finance and Takeovers",.

yield. These cost-of-capital-indexed options have many advantages over the typical executive stock option.

R-20. Compensation committees should give careful consideration to issuing executive stock options with exercise prices that increase with the company's cost of capital (less the dividend yield if the option is not dividend adjusted).

Consider an example where the cost of capital is 10% net of the dividend yield, the current stock price is $10 and the exercise price of the option is $10. Such options would pay managers nothing if the stock price failed to rise over any period by an amount greater than the cost of capital less the dividend yield. This means managers earn nothing on their options unless shareholders do better than breakeven. Since cost of capital indexed options are less valuable firms can award more of them to managers for the same cost to the firm and thereby create more high-powered incentives for the same cost.

R-21. Managers should receive annual statements that clearly summarize in one place the changes in their wealth in the prior year from all sources of compensation from the firm (including changes in the present value of future retirement and deferred compensation).

Because managers often do not know the sources and amounts of their total compensation we advocate giving them annual statements detailing the changes in their wealth in the prior year due to the grant date value of options received during the year, and changes in the present value of their holdings of options, shares, other bonuses, and retirement benefits from the company. If the stock price in our example rises to $11 over the first year it is exactly equal to the new exercise price, and the exercise value of the option is still zero. Thus, managers would be taught in a graphic way that the cost of equity capital is not zero.

In cases where the cost to the company of emoluments can be calculated these should also be included in the report. Such accounting will be helpful both to the managers and to the compensation committee that is managing the process.

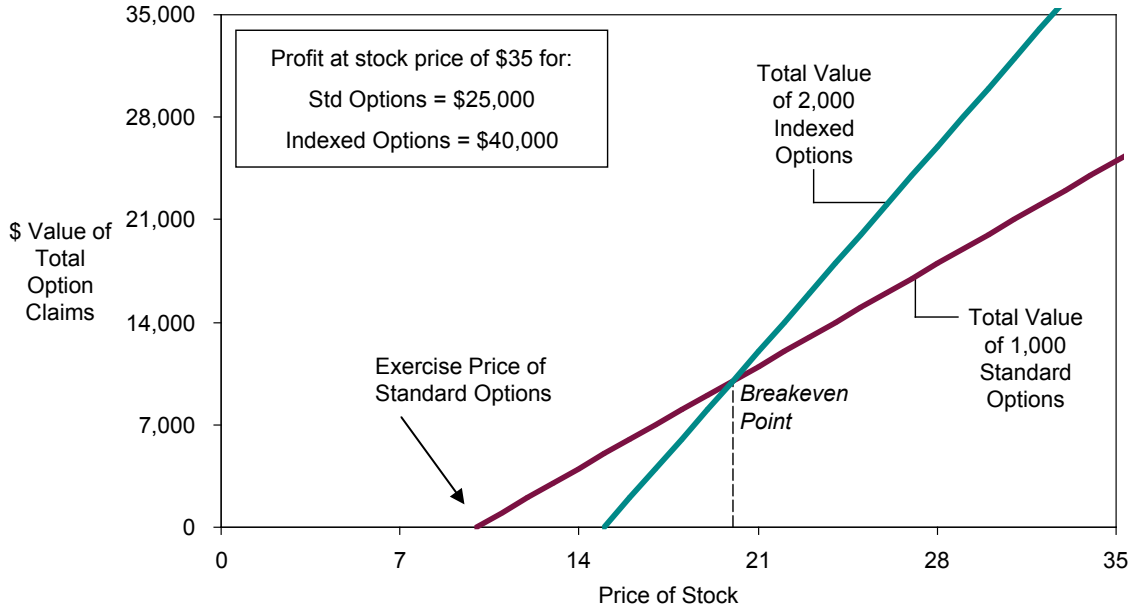
Some might argue that we cannot get managers to accept these indexed options if other firms are awarding the current flawed options. We agree this is an issue, but there are reasons this can turn out to be an advantage. Because these indexed options are not as valuable as the standard flawed executive stock options we can (and indeed, must) award more of them if we are to keep managers whole. Moreover, depending upon how much firm value managers think they can create they may even prefer these new indexed options because their payoffs can be greater than under the standard options. And in these conditions the indexed options can induce managers to stay who believe their strategy can create value while encouraging others to leave.

Figure 9 provides a graphical illustration of the conditions in which a manager would be better off with cost-of-capital indexed options than the standard options. Assume that the cost of

capital is 10%, the exercise price equals the market price at issue of option, exercise price grows at 10% per year for the indexed option and zero for the standard option, and the grant-date value of the two packages is equal at a two to one ratio.[53] The figure shows the exercise *total value* of 1,000 standard options and 2,000 cost-of-capital indexed options for 4.3 years after award when the exercise price of the indexed option is $\$15 = (1.1)^{4.3} \times \$10$. At this point with stock price equal to $15, the 1,000 standard options with an exercise price of $10 are worth $5,000 and the 2,000 options with cost-of-capital-indexed exercise price of $15 are worth zero. But since the slope of the indexed option payoff is twice that of the standard option the manager with such options will earn more than one holding the standard options if he or she can create any value in excess of the breakeven point of $20. For example, as the figure shows the total payoff for the 2,000 indexed options package at a stock price of $35 per share is $40,000 at 4.3 years after award while the total payoff for the 1,000 standard options is only $25,000.

[53] For example, suppose that the current stock price is $10, risk-free rate is 6%, the stock-price volatility is 30%, and the dividend yield is zero. Under these assumptions, the value (using the binomial option value formula to allow for early exercise) of a 10-year option with an exercise price beginning at $10 and increasing 10% annually is one-half the value of a 10-year option with an exercise price fixed at $10.

Figure 9 **Cost-of-Capital Indexed Options Have Higher Payoff for Value Creation and No Incentives for Managers to Treat Capital as Costless. It pays managers to choose the indexed option plan as long as they believe they can create more value than the breakeven level of $20 in this example.**



Assumptions:

- Cost of equity capital net of dividend yield = 10%
- Exercise price of standard option is $10 / share = Market price at issue
- Graph is for 4.3 years after issue when exercise price of indexed option is $15 = $(1.1)^{4.3} \times \$10$
- Equal Black-Scholes value of options is assumed to be 2 indexed options = 1 standard option (this will vary depending on firm, variance, and standard option provisions)

We can see several things from the analysis:

Ex post it costs shareholders nothing to award cost-of-capital-indexed options to their managers if managers are not able to create value in excess of the cost of capital. Managers share in the gains only when the gains to shareholders are positive in a real, not accounting sense. This means shareholders can give managers a larger share of the pie when they succeed in creating value.

Considering option gains only, managers have no incentive to hold capital in the firm unless they can earn at least the cost of capital on it. And to the extent that they do hold free cash flow in the firm and invest it at below cost of capital they reduce their option gains.

Managers have incentives to choose the indexed options when they are more confident they can create substantial value in the firm. This means there is a desirable self-selection property to

these plans. If a competitor offers our managers an option package consisting of 1000 standard options as in the graph, our managers are more likely to take it and leave if they think they cannot create much value in our firm, and are much more likely to stay if they believe they can create great value in our firm

Let's assume that our manager's know they cannot create value in a firm competing for their services. In the case portrayed in Figure 9 above our managers would leave for the competitor offering the standard package if they do not believe they can create at least the breakeven returns of $20 in our firm. And if we can replace them with managers who can at least earn breakeven returns, we want the current managers to leave. Their choices thus reveal valuable information that the compensation committee can never get by simply asking managers — either current or potential ones. (A complete analysis of these retention issues means we have to evaluate the entire executive compensation plan including salary, cash bonuses, retirement and other benefits as well, but we ignore them here for simplicity.) Thus in a competitive situation (and assuming our managers understand the tradeoffs portrayed in Figure 9), managers will self-select themselves into our firm to the extent they believe they can create more value in our firm than elsewhere.

The self-selection principle explained in the discussion above can be extended with great effect we believe by changing share option plans in one additional aspect. But first note that if a share option grant is offered to an executive as a pure add-on with no give up in any form of compensation, he or she would be a fool to refuse to accept it — even if he or she had no faith whatsoever in the likelihood of successful execution of the strategic plan. There may be considerable upside from random or market factors alone (especially if it is not indexed to the cost of capital) while there is clearly no downside to accepting the add on options. While it is true such a grant will increase incentives, the executive's decision to accept the options reveals no information to the board that the executive believes the strategic plan just accepted by the board has no serious chance of being executed or if executed of creating any real value for the firm. If these are the executive's beliefs, they are something the board and the compensation committee should know. There is no way to find out by simply asking the executive. But there is a way to find out by offering them a real choice.

Suppose we offer managers a share option grant where the exercise price is indexed to the cost of equity capital less the dividend rate and we set the exercise price 10% below the market price on the grant date. But instead of giving the option to the executives we offer to sell them the options at a nominal price equal to the difference between the grant date market price and the exercise price. So if the price of the stock is $100 dollars we offer to sell the option with a $90

exercise price to them for $10 per option. We know from Black-Scholes pricing theory that the option is worth considerably more than the $10 spread (generally on the order of 30% to 50% of the price of the share). In fact we are charging them nothing for the value of the option itself.

Now the executives' choice is not so obvious. To get the option they have to put their own skin in the game. In the example we are using it would cost the executive $10 for each option, and now if they have little or no confidence in their or the company's strategic plan they will be reluctant to accept the offer. This is important information for the committee that should be asking whether it wants to vest responsibility for executing the company's strategy in a CEO or management team that is unwilling to bet that their strategy is going to create value by earning more than the cost of capital.

This sale of options at a bargain price to executives also provides a way to solve the repricing problem — the pressure from executives whose options are far underwater because the firm's stock price has fallen below the exercise price. Now the committee's response can be quite simple. If you the executive now have confidence that you can execute a value-creating strategy we will issue new options to you with the same terms as the last. You keep the old options but can buy new ones with exercise price 10% below the current market price, but you have to pay the 10% in cash from personal funds. Again, refusals to take this offer will reveal much about whether the executive believes in the strategy.

R-22. Compensation committees should give serious consideration to offering executives the opportunity to bet on their strategy along with shareholders by offering to sell them in-the-money cost-of-capital indexed stock options at the nominal price equal to the difference between market and exercise prices at date of issue.

Selling executives cost-of-capital indexed options causes executives to have skin in the game, motivates them to understand that the cost of equity capital is not zero (or the dividend yield for dividend-paying stocks), motivates executives to self select in or out of the firm based on their private information and beliefs about their ability to create value in the firm, guarantees to shareholders that managers' options pay off only when shareholders do better than breakeven at the cost of capital, and solves the option re-pricing problem when options are far out of the money.

Risk Aversion and the Cost and Benefits of Incentive Pay

Finally, there are those who argue (correctly) that because managers are risk averse and unable to perfectly hedge the risks in the option packages we give them, managers will value the options at less than the cost to the firm of granting them. Hall and Murphy (2002), Meulbroeck (2000) and others estimate under reasonable conditions that managers will value a standard

option package at about 55% of the cost to the firm of providing it. Put another way, the firm could give a manager straight cash compensation equal to 55% of the Black-Scholes value of its options and leave them just as well off — assuming, of course, that the manager has no special information or beliefs about his ability to create value in the firm.

We are, however, willing to pay managers in a less efficient way (and therefore pay them in ways that will cost us more in aggregate) if the incentive effects of paying through options create enough value to more than cover the extra compensation cost. If we start at a bureaucratic purely fixed-cash-compensation (that by definition is independent of value created or destroyed) it is desirable for a firm to substitute risky outcome-based pay for some riskless fixed pay. The value-creation benefits (if we get the pay-performance relations of the compensation correct) will generally far outweigh the risk-bearing premium we have to pay to compensate the manager. Consider a $1 billion firm whose CEO is being paid a no-risk salary of $7 million and is expected to create value in excess of the cost of capital of 1% or $10 million. Suppose we offer the CEO cost-of-capital indexed options with grant date value of $4 million in exchange for him giving up $2 million of riskless cash compensation. If this exchange is expected to increase incentives by an amount sufficient to generate another .2% gain in value the firm will break even.

Make Unwinding Rights Explicit in Incentive Compensation plans

Recognizing that we must pay a risk premium either explicitly or implicitly for risky incentive compensation plans raises an important and often overlooked issue. Boards of directors who are paying managers through a risky performance-based scheme must prohibit their managers from using financial engineering to hedge those risks away in the capital markets. If we fail to do this we will have paid a premium to get better alignment of incentives with value creation and gotten little or no benefits.

We cannot allow managers and their financial advisors to eliminate or reduce the risks and along with it the incentives we so carefully designed into the plans (and paid for). In principle this is easy to do by requiring managers to report all transactions in the company's securities[54] to the board and to prohibit them from trading in contingent claims of any type on their firm. Unfortunately, in many boards it is generally considered inappropriate for the compensation committee or the full board to inquire into the equity or portfolio holdings of its top-level

[54] To be complete we must require the executives to report all transactions to the company so that we can detect the construction of composite securities to accomplish the forbidden hedging.

managers. It is our belief that if compensation policies are to be truly effective this cultural practice must change.

Indeed, we have been mystified for many years as to why boards do not formally restrict managers' freedom to unwind the incentives the compensation committee constructs for them. Academic researchers routinely analyze the vesting restrictions imposed by boards and committees that determine the point at which an executive can leave the firm and take the options or equity with him.[55] And boards regularly pay attention to these vesting provisions.

Equally important, but generally unaddressed, however, are constraints on the point in time at which the executive can exercise the option (for example) and sell the shares, thus unwinding the incentives.[56] There are many reasons why we might wish to constrain an executive's right to unwind the incentives (thereby turning the stock or options into cash) for some period of time beyond the vesting date. We have undoubtedly paid a premium to compensate for the increased risk in order to gain the incentive benefits, so we should be thoughtfully examining when it makes sense strategically to give the executive freedom to cash in and unwind the incentives and how much unwinding he or she can do at each point in time. Indeed, the unwinding terminology should become as common in considerations of executive compensation as the vesting terminology is now.

R-23. Compensation committees should give conscious consideration to the tradeoffs associated with allowing an executive to unwind incentives, and the timing and amounts of such unwinding to be allowed.

> Compensation committees should include explicit unwinding constraints (or required permissions) in executive incentive awards. They should monitor the portfolio holdings of top-level executives and related parties to ensure that they are not inappropriately unwinding the incentives that have been put in place by the committee and the board and paid for by the company.

There is at least one other reason for compensation committees to monitor and constrain the portfolio policies of its executives. Executives regularly come into possession of insider information regarding the value of the firm's securities. Indeed, if they are doing a good job they are creating it. While there are laws preventing executives from trading on inside information

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55 See, for example, Kole, 1997, "The Complexity of Compensation Contracts", *Journal of Financial Economics,* V. 43, No. 1: pp. 79-104.

56 The concept of unwinding constraints is discussed in Fried, 1998, "Reducing the Profitability of Corporate Insider Trading Through Pretrading Disclosure", *Southern California Law Review,* V. 71: pp. 303-392; Ofek and Yermack, 2000, "Taking Stock: Equity-based Compensation and the Evolution of Managerial Ownership", *Journal of Finance,* V. 55, No. 3: pp. 1367-1384 and Bebchuk, Fried and Walker, 2002, "Managerial Power and Rent Extraction in the Design of Executive Compensation", *University of Chicago Law Review,* V. 69, June: pp. 751-846 (available from the Social Science Research Network eLibrary at: http://papers.ssrn.com/abstract=316590).

those laws are not uniform and even in their most restrictive form allow executives considerable freedom to effectively trade on such information and thereby transfer wealth from the firm's security holders to themselves.[57] However, it is well documented that corporate insiders consistently earn above normal profits on their trading in shares of their firms.[58] Fried (1998) (p. 323) estimates that corporate insiders earn almost $5 billion per year in insider trading profits on common equity alone.

Whether or not such trading violates insider-trading laws, it is certainly inconsistent with the fiduciary responsibility that boards and executives have to the holders of their securities. And since these wealth gains come directly from the public holders of the securities it is well within the purview and responsibilities of the compensation committee to monitor and limit these gains. Fried (1998) provides extensive analysis of these issues and suggests the best solution to limit such inappropriate profit taking while not overly constraining the liquidity of insiders is to require a pre-trade disclosure of the executive's intention to trade. He argues for a legal /regulatory solution, but we believe wise boards can and will do it for themselves on a voluntary basis.

R-24. Compensation committees should require pre-trading disclosure of intention to trade for all insiders as a condition of employment.

Firms should adopt these policies as a way to guarantee that executives will not use insider information to disadvantage the shareholders to which they owe a fiduciary duty. And it is important for all effective sales to be treated this way (for example, an executive's repayment of a company loan by transfer of any options, stock or debt security to the company).

R-25. Compensation committees should, as a condition of employment, prohibit top-level executives from trading in derivatives of any kind, but especially those related to the securities of the firm.

These constraints are required to enforce the unwinding constraints established in R-23 and insider trading constraints in R-24.

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[57] See Fried, "Reducing the Profitability of Corporate Insider Trading Through Pretrading Disclosure", and Bebchuk, Fried and Walker, "Managerial Power and Rent Extraction in the Design of Executive Compensation", (particularly pp. 829ff).

[58] See Seyhun, 1992, "The Effectiveness of Insider Trading Sanctions", *Journal of Law & Economics,* V. 35, No. 1: pp. 149-182.

Problems with Annual Bonuses[59]

Annual bonuses offer several advantages over equity-based plans for providing incentives in organizations. First, equity-based plans reward managers for increases in stock prices but they do not in and of themselves provide managers with any guidance on how they can increase equity values. If this issue is left unaddressed as it is in many organizations it can leave managers and boards ignorant of what actually creates value in their organizations — although it does provide incentives for them to discover how to create value. The evidence cited above on the systematic mistakes that boards and managers have made in awarding too many options to too many people, and awarding too many post-retirement benefits prior to FASB 106, are consistent with our observation that managers and boards are often unaware of what truly creates or destroys value in their organizations. In light of this, and presuming top management does know what creates value (and this is a important assumption), annual bonus programs can be structured to provide incentives focused on specific operational objectives that will lead to value creation. The obvious problem here is that if the board and top management do not know what creates value, moving away from equity-based plans removes an important incentive for them to find out.

Second, equity-based incentives are best at motivating top managers and others (perhaps some key engineering or technical employees) who can directly affect company stock prices, while performance measures in bonus plans can be customized to individuals or divisions throughout the organization. Third, the immediacy and tangibility of cash awards can provide stronger incentives than distant and uncertain paper gains in unvested equity plans. Finally, annual bonus plans can contain subjective elements not easily available in explicit equity-based plans.

Although well-designed annual bonus plans can provide meaningful incentives throughout an organization, most bonus plans in practice contain important design flaws that limit their effectiveness. They create incentives to destroy rather than increase value through shirking, value-destroying smoothing of results, or depending on the form of the pay-performance relation they can create incentives to destroy value by *increasing* the variability of results. Perhaps more importantly most bonus plans create incentives for the organization to destroy information critical to the effective coordination of disparate parts of large complex firms, and incentives for participants to lie and engage in other unethical behaviors.

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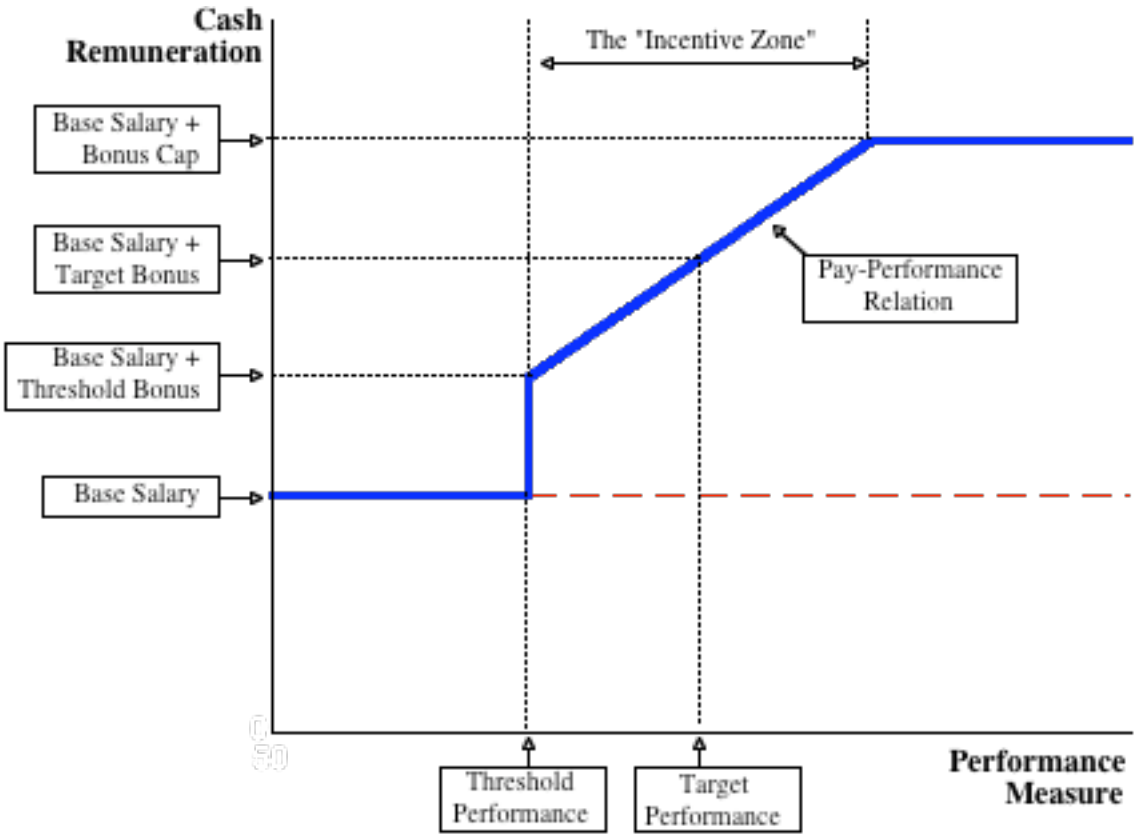
[59] This section draws extensively from Murphy, 2000, "Performance Standards in Incentive Contracts", *Journal of Accounting & Economics,* V. 30, No. 3, December 2000: pp. 245-278 and Jensen, 2003, "Paying People to Lie: The Truth About the Budgeting Process", *European Financial Management,* V. 9, No. 3, 2003: pp. 379-406 (available from the Social Science Research Network eLibrary at: http://papers.ssrn.com/Abstract=267651).

Yet, in spite of these costs, virtually every for-profit company offers an annual bonus plan covering its top executives that is based on a single-year's performance. In spite of substantial heterogeneity across companies and industries, executive bonus plans can be categorized in terms of three basic components: performance measures, performance targets or budgets, and the structure of the pay-performance relation. Figure 10 illustrates these basic components for a "typical" bonus plan. Under the typical plan, no bonus is paid until a threshold performance (usually expressed as a percentage of the target performance) is achieved, and a "threshold bonus" (usually expressed as a percentage of the target bonus) is paid at the threshold performance. Target bonuses are paid for achieving the target performance, and there is typically a "cap" on bonuses paid (again expressed as a percentage or multiple of the target bonus). The range between the threshold and cap is labeled the "incentive zone," indicating the range of performance where incremental improvement in performance corresponds to incremental improvement in bonuses.

Figure 10 Base Salary and Bonus for a Typical Annual Bonus Plan



Poorly designed pay-performance relations

The pay-performance relation illustrated in Figure 10 is descriptive of the vast majority of bonus plans in practice, and yet is replete with incentive problems. These plans are frequently integrated with the firm's annual budget cycle and the targeted level of performance is one of the major outputs from the budgeting process. The problems with these systems involve the counterproductive incentives that are introduced at any point the pay-performance relation is anything other than a straight line.

Consider the effect of the kink at the Threshold Performance level. Managers who believe they cannot achieve threshold performance this year will stop producing (or "save" profits for next year by delaying revenues or accelerating expenses). The figure shows that there is no bonus penalty for missing the Threshold by a lot instead of a little. And if we see that we are not going to make it we are then better off to take a bigger hit this period so we can do better next period. Managers struggling to make the Threshold but still believing they can make it have

incentives — provided by the large threshold bonus to do whatever is necessary (including destroying value) — to achieve the threshold. Because of these incentives we can predict that a disproportionate number of managers will end up at or slightly above the threshold. At the other end of the "incentive zone", managers capable of producing well above the "cap" will tend to stop producing once they "max out" on their bonuses and will transfer performance results that could have been realized this period into the next period (but often at less than a 1 for 1 basis). In most companies, the range between the threshold performance and the cap in Figure 10 is fairly narrow, typically covering performance from 80 percent to 120 percent of target performance.

More generally, "non-linearities" in the pay-performance relation cause predictable incentive problems, especially when managers are able to "trade-off" current for future performance. When the pay-performance relation is concave (or bowl shaped) managers can increase their total bonus payouts by increasing the variability of their performance. We saw this illustrated in our discussion above of what happens when a manager is near the threshold where the kink is associated with a hurdle bonus at the threshold. On the other hand, in situations when the pay-performance relation is convex (or upside down bowl shaped) in the relevant range, managers have incentives to smooth performance by capping truly superior performance and saving as much of it as possible for a rainy next period. This is the situation at the cap. Thus, when managers are either increasing or reducing the variability of results to game the bonus system they are inevitably destroying value for the organization. What started out as a system to motivate increased performance ends up motivating counter productive behavior.[60]

Paying people to lie

There is another large set of problems induced by these non-linear pay-performance relations. We've just described the damage caused by non-linear pay-performance relations once the targets are set. Let us move back a step to see what happens in the process that leads to the setting of the targets, threshold and caps. We focus for simplicity on the setting of the target or budget. Almost all firms go through an annual budget cycle in which lower-level managers, departments, and divisions submit budgets for targeted outputs in the following year. After much conflict and negotiation final budget targets are reached and assigned. In this process managers learn that those who tell the truth about what they can do get punished by getting more

[60] And the costs can be high. Examples are legion. In one case managers intent on satisfying a sales target to earn a bonus shipped unassembled parts to a warehouse near its customer in a distant country at the end of the year to conclude the sale. They then had to assemble the parts at great cost to the firm in the foreign environment to satisfy the customer. Profits went down, but the managers earned their bonus. See Jensen, "Paying People to Lie: The Truth About the Budgeting Process", for many other examples of value-destroying behavior induced by these budget-linked non-linear pay-performance relations.

demanding targets. Those who can successfully low-ball the process get rewarded with less demanding targets. But there is an important casualty in this process. The information that is critical to coordinating the disparate activities of a large complex organization gets unnecessarily muddied or destroyed in the process. Since top-level managers know that lower level managers will lie about what they cannot do, top-level managers are led to lie about what their subordinates can do. No one thinks of these games as lying, it's just a negotiation. But think about it, almost no one in the system has the incentives to tell the truth and reveal the critical information that they have (or can discover) about what can and should be done in the next year.[61] One of the authors is less sensitive to the controversy caused by characterizing these bonus/budgeting systems as "paying people to lie", and believes that eliminating such behavior in organizations can result in productivity improvements in the range of 50 to 100%. [62]

Although most managers and analysts understand that budget gaming is widespread, few understand the huge costs it imposes on organizations and how to lower them. The key lies not in eliminating budgeting systems, but in changing the way organizations pay people.[63] In particular to stop this highly counter-productive behavior we must stop using budgets or targets in the compensation formulas and promotion systems for employees and managers. This is accomplished by (1) taking all kinks, discontinuities and non-linearities out of the pay-for-performance profile of each employee and manager, and (2) committing not to change the pay-for-performance profile from year to year based on budgets, prior-year performance, or any other

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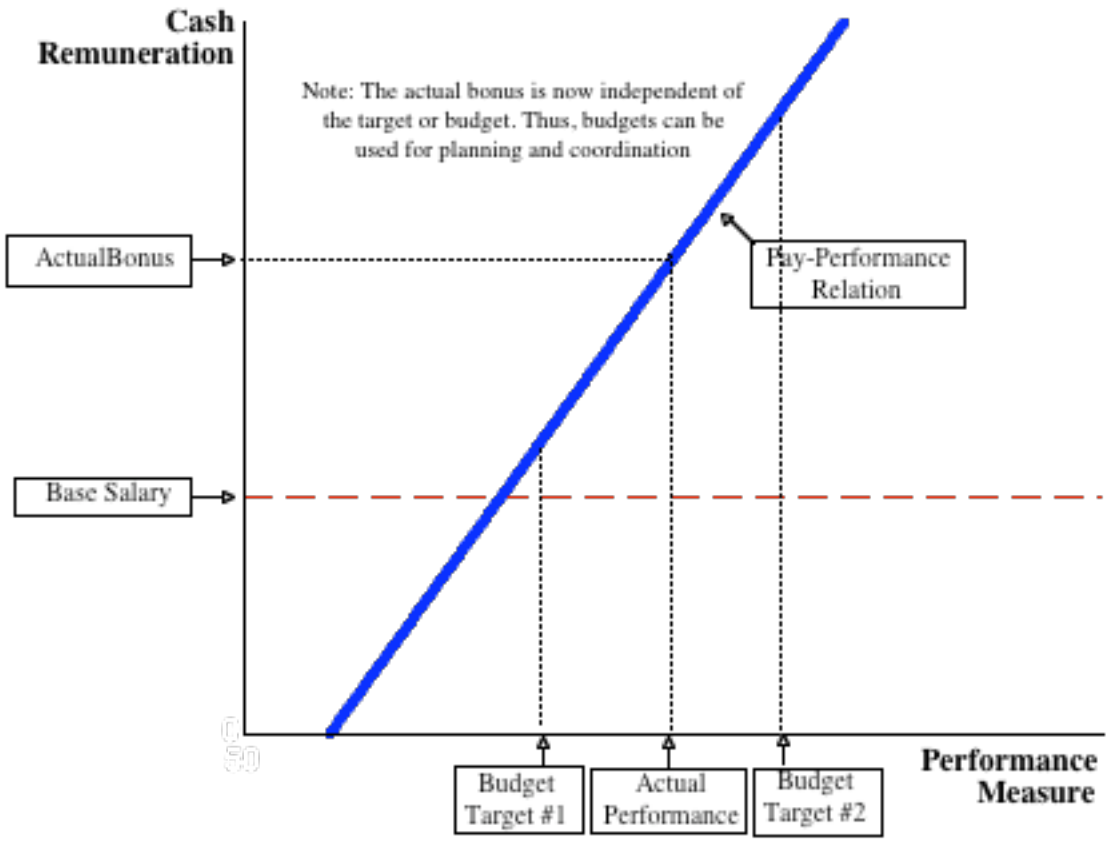
[61] There are situations in which it can pay managers to overstate what they can produce next period. For example, suppose that if I promise to produce more I can get more resources (labor, capital, materials), and suppose further that if I don't actually produce what I promised I do not get punished in the system. In this game there will be systematic overstatement of next year's performance.

[62] See Jensen, "Paying People to Lie: The Truth About the Budgeting Process", p. 390.

[63] Some do argue that we should abolish budgets entirely. While in some cases this may be desirable we are not convinced it is necessary or will work in all organizations. See Hope and Fraser, 1997, "Beyond budgeting: Breaking Through the Barrier To 'The Third Wave'", *Management Accounting,* V. 75, No. 11: pp. 20-23; Hope and Fraser, 1999a, "Beyond Budgeting White Paper, Beyond Budgeting Round Table", May: Fraser Hope Associates, CAM-I Consortium for Advanced Manufacturing, International; Hope and Fraser, 1999b, "Beyond Budgeting: Building a New Management Model for the Information Age", *Management Accounting-London,* V. 77, No. 1: pp. 16-21; Hope and Fraser, 2000, "Beyond Budgeting", *Strategic Finance,* V. 82, No. 4: pp. 30-35; Hope and Fraser, 2003, *Beyond Budgeting: How Managers Can Break Free from the Annual Performance Trap*, Boston, Mass.: Harvard Business School Press; Kersnar, 1999, "Re-Inventing the Budget", *CFO Asia*, July/August; Lester, 2000, "Monday Management: Managers Count Blessings As Budgets Begin To Lose Currency--Some Firms Long for Freedom from the Burden of Budgeting", *Irish Times,* and Thomas, 2000, "Toss Your Budget Out the Window", *Business Review Weekly*, V. 72, September 8, who summarize the experiences of a number of mostly Scandinavian companies including Svenska Handelsbanken (Sweden's largest bank which abandoned budgets in 1970), Air Liquide, SKF, Ericsson, Skania, Schlumberger, Skandia, Swedish Post, Tetrapak, Diageo, Borealis, Volvo Cars, IKEA, and Fokus Bank which have abandoned budgets or are in the process of doing so. The Consortium for Advanced Manufacturing International (CAM-I) has established a Beyond Budgeting Roundtable to understand and report on these developments.

Figure 11 How Linear Pay-Performance Relations eliminate gaming and budget-related incentives to lie



The solution to the budget gaming problem: Remove all kinks, discontinuities and curvilinearity from the pay-for-performance function. Note that the bonus for actual performance in the figure (the Actual Bonus) is the same whether the budget target was set at #1 or at the higher #2 level. Therefore, because managers are rewarded for what they produce and not for what the target is set at, they have no incentive to lie about what they can or cannot do in the budget setting process.

metric influenced by managers in the current or prior years. Such purely linear compensation formulas provide no incentives to lie, or to withhold and distort information, or to game the system. Figure 11 provides a simple proof of why this is true. As long as the pay-performance relation is linear with no kinks or discontinuities, a manager's bonus does not depend on what his or her target is. If the actual performance in the figure is the same, the figure shows that the actual salary plus bonus is the same even if two very different targets were set. Therefore, managers have no incentives from the bonus target setting process to lie about what can be accomplished in the next period, and planning can take place with more accurate information.

Moreover, eliminating budget/target-induced gaming from the management system will eliminate one of the major forces leading to the general loss of integrity in organizations. Once taught to lie in these systems people generally cannot help but extend that behavior to all sorts of

other relationships in the organization. While compensation committees and boards are not generally involved in setting the compensation of everyone in an organization, since they are in the end accountable for the integrity of the organization, they must be involved in resolving these integrity-damaging budget-based problems.

R-26. Design bonus plans with "linear" pay-performance relations.

> Better-designed pay-performance relations are linear over a broad range, with very high (or non-existent) caps, and "bonus banks" that allow bonuses to be negative as well as positive. Bonus banks can be created in a number of ways including, for example, paying a bonus out over three years, where the unpaid bonus is available to make up some or all of a negative bonus in the current year. See Stewart (1990).

Although linear pay-performance relations offer important advantages over non-linear relations, we recognize that there is sometimes a trade-off between providing linear payoffs and non-linear payoffs that have higher "leverage". For example, in Figure 9 the traditional stock options had a lower exercise price and hence a broader incentive zone (as defined in Figure 10) than the cost-of-capital indexed option. However, because the indexed option was less costly to the company, it could grant approximately twice as many indexed options as traditional options for the same total cost to the company. Similarly, for the same cost to the company, a firm might be able to offer (1) a bonus offering 1 percent of net profits, or (2) a bonus offering 5 percent of net profits payable only above $100 million in profits. The latter has more leveraged incentives above $100 million, but strictly worse incentives well below $100 million, and particularly bad incentives right around the $100 million mark.

Poorly designed performance standards

Bonuses are usually not, in practice, based strictly on a performance measure, but rather on performance measured relative to a performance standard. Examples include net income measured relative to budgeted net income (as we discussed extensively above), earnings per share (EPS) vs. last year's EPS, cash flow vs. a charge for capital, performance measured relative to a peer-group, or performance measured against financial or non-financial strategic "milestones." Performance standards typically correspond to "expected performance" or, more precisely, the level of performance required to attain the executive's "target bonus."

The efficacy of alternative performance standards depends on the extent to which managers can influence the standard-setting process: managers can increase bonuses either by taking actions that increase the performance measure or by taking actions that decrease the performance standard. For example, when standards are based on prior-year performance, managers will tend to avoid unusually positive performance outcomes, since good current performance is penalized

in the next period through an increased standard. Similarly, when standards are based on meeting the pre-determined company budget, managers have incentives to negotiate easy budgets and to avoid actions this year that might have an undesirable effect on next year's budget. Standards based on the performance of co-workers create incentives to sabotage co-worker performance or collude and collectively shirk, while standards based on the performance of an industry peer group provide incentives to select "weak" industries and peers.

In spite of their obvious problems, most companies use standards that are readily influenced by managers. For example, Murphy (2000) finds that 89% of a sample of 177 large US companies base standards on budgets or prior-year performance. These issues are so important that the board and compensation committee should be involved in setting general policy that limits the counter-productive effects of these systems. The integrity of the company depends on it.

R-27. Avoid internally influenced performance standards

> Internally influenced performance standards are those where the bonus-plan participants can take actions (often value destroying) that increase bonuses by reducing the standard rather than by improving performance.

In addition to linearizing the pay-performance relation, some of the problems with budget-based bonuses can be mitigated by "externalizing" the performance standard; that is, by basing standards on objective measures beyond the direct control of managers (although managers will still have incentives to use value-destroying means to achieve the standard). For example, in LBOs and other highly leveraged organizations, the objective of "making budget" is replaced by an objective of generating sufficient cash flow to service the debt. Combined with the large equity holdings of LBO managers and directors, this yields a pay-performance relation that has only one non-linearity (at the point of default and bankruptcy). An effective way to understand this critical advantage of the LBO/MBO organization is to see the debt negotiation with the outside supplier of credit as "externalizing" the budget process.

Similarly, to the extent that budget-based internal control systems play a more important role in large diversified corporations, the focus on making budget is reduced following spin-offs and divestitures. Relative performance incentive plans, increasingly popular in utilities and cyclical industries, replace "making budget" with "beating the industry." But when boards use such external standards they must realize that once such beat-the-industry standards are put in place, the board rather than the management team must retain the decision rights over what industry the firm is to be in. Not doing this can simply result in the management team doing well by staying in a flawed industry and destroying less value than its competitors. This can delay the

competitive adjustment required to move resources to more highly valued uses and thereby destroy social value as well.

Similarly, in companies or divisions measured by EVA, budget-based objectives are replaced by generating cash flows in excess of the cost of capital. Incentive plans such as Disney's well-designed but now defunct plan that paid its CEO 2 percent of income over a fixed threshold (which was approximately 11 percent of the book value of net assets), also externalize and makes linear the performance standard. In all these examples, the organizations continue to use budgets for planning and communication purposes, but stop short of using budgets to define performance targets and determine rewards.

Poorly designed performance measures

Business history is littered with firms that got what they paid for. At the H.J. Heinz Company, for example, division managers received bonuses only if earnings increased from the prior year. The managers delivered consistent earnings growth by manipulating the timing of shipments to customers and by prepaying for services not yet received (Post and Goodpaster (1981)). At Dun & Bradstreet, salespeople earned no commission unless the customer bought a larger subscription to the firm's credit-report services than in the previous year. In 1989, the company faced millions of dollars in lawsuits following charges that its salespeople deceived customers into buying larger subscriptions by fraudulently overstating their historical usage (Roberts (1989)). In 1992, Sears abolished the commission plan in its auto-repair shops, which paid mechanics based on the profits from repairs authorized by customers. Mechanics misled customers into authorizing unnecessary repairs, leading California officials to threaten to close Sears' auto-repair business statewide (Patterson (1992)).[64]

In each of these cases, employees took actions to increase their compensation, but these actions were at the expense of long-run firm value. The problem is illustrated succinctly by the title of Steven Kerr's famous 1975 article, "On the folly of rewarding A, while hoping for B" (Kerr (1975)). Indeed, many examples of dysfunctional compensation and incentive systems can be traced to inappropriate performance measures. Piece-rate schemes, for example, provide incentives to increase quantity at the expense of quality. Bonus plans based on net income provide incentives to increase accounting profits while ignoring the cost of capital and thereby destroying value. Plans based on "returns" (e.g., return on equity, return on assets, etc.) provide incentives to pursue only the highest return project, ignoring profitable projects earning slightly

[64] See also Baker, Gibbons and Murphy, 1994, "Subjective Performance Measures in Optimal Incentive Contracts", *Quarterly Journal of Economics,* V. 109, No. 4, November 1994: pp. 1125-1156.

lower returns. Returns are a particularly interesting performance measure because they are an example of the pitfalls associated with ratios as performance measures. Our rule is:

R-28. Do not measure performance anywhere in an organization with ratios. Simply put: If it is a performance measure and a ratio, it's wrong

> Ratio measures of performance can often be made to work by appropriately changing the decision rights of the agent, but this is almost never done. For example, return on assets can be made to work if the agent is given only the right to decide which assets to use, not the quantity of assets.

Although almost never directly measurable, the "perfect" performance measure is the individual's contribution to firm value. While we cannot offer precise guidelines on how to identify the most appropriate measure in any situation, we can offer some general "guiding principles" to help design better plans.

R-29. Use "line-of-sight" performance measures when possible and give each employee the decision rights to do their job.

> This prescription actually involves several dimensions. To provide incentives, employees must be *able* to affect the performance measure, and also must understand *how* they can affect the performance measure. To be able to affect the performance measure they must have the appropriate decision rights to do so.

Incentive compensation can't be effective unless employees are given sufficient decision rights to exercise discretion over the performance measures. Moreover, even seemingly perfect performance measures will fail if employees don't understand how their actions affect the performance measures. (Tying pay to the measure, however, will induce employees to learn about their potential effect.)

R-30. Use performance measures that reduce compensation risk while maintaining incentives.

> Since employees "charge" to bear compensation risk, performance measures that reduce risk without reducing incentives increase efficiency and company profits. However, when risky compensation is an add-on to current compensation there is no need to further compensate managers for that added risk.

This guiding principle suggests an important trade-off between using narrow and broad performance measures. Narrow measures — such as measures based on individual performance or short-term performance — have low risk but fail to capture potentially important interdependencies (i.e., how a person's current actions affect the performance of others in the firm or in future years). Broad measures — such as measures based on team, group, or division performance or long-term performance — capture more interdependencies but are often riskier.

R-31. Pay particular attention to the choice of group versus individual performance measures.

When there are substantial interdependencies in productivity between the actions of two or more people or groups, define the extent of the performance measure to incorporate the interdependencies. Using individual performance measures in situations where cooperation is important will create conflict, lack of cooperation and reduced performance. And the same principle applies to the choice of the time interval over which performance is measured.

R-32. Bonus plans should include a subjective component.

There are often no low-risk objective measures of the individual's contribution to firm value. The objective measures that exist often are too risky (i.e., based on factors that are highly variable), provide insufficient direction (the employee might not know how to affect the measure), or provide incentives to do the wrong thing. However, even when no appropriate objective measures are available, supervisors or managers can often assess an individual's contribution to value subjectively. Subjective assessments can also be used to reduce the noise in good objective measures, to reduce the "distortion" in bad objective measures, and can also adjust bonus payouts for unanticipated shocks (such as terrorist attacks or shocks to world oil prices).

Finally, every bonus plan should include a subjective component if for no other reason than to prevent value destruction by those who game the system. Every performance measure is subject to gaming. Every bonus system should allow for denial or modification of a bonus that is earned by inappropriate actions, actions that harm others, or actions that punch a hole below the waterline.

R-33. Every bonus system including option and other equity-based programs should provide for recovery of rewards (clawback) if and when there is future revision of critical indicators on which bonus payments were based or received.

This clawback should include, but not be restricted to, amounts due because of formal restatements of accounting numbers such as earnings or revenues. Moreover, provisions should be made whenever possible to recover the amounts from bonus banks, deferred payments or retirement benefits when it is impossible to recover the amounts directly. In the absence of these clawback provisions we are unintentionally rewarding and therefore providing incentives for people to lie and game the system.

There are many challenges involved in incorporating subjective assessments in reward systems. First, no one likes receiving unfavorable performance evaluations, and few managers enjoy giving them. And when they do get them, individuals have ways of imposing costs on those who give such negative feedback. But without feedback on one's mistakes, no one can effectively learn. Given all this, it is not surprising that managers dislike giving unfavorable performance appraisals and avoid making distinctions among employees based on performance.

(And we have no trouble in predicting that members of compensation committees are no different in this respect.)

In addition, in most organizations managers have few incentives to make thorough assessments, since there is often little reward for giving careful appraisals. And conducting careful performance appraisals takes time away from other more highly rewarded activities. (In these situations the performance measures of the manager doing the assessments are not appropriately weighting the performance appraisal function—one of a manager's most important duties, and yet a common problem in organizations.) Also, employees often don't trust managers to make unbiased assessments, or don't believe managers possess sufficient information to make appropriate assessments.

All the above issues come up sooner or later in the compensation committee's assessment of the performance of senior executives. And here the stakes and pride are extremely high so it is not surprising that part time people (directors) are often unwilling to devote the time and the personal effort and courage to provide accurate, frank and effective performance appraisals of CEOs and other top managers.

Finally, managers are often tempted to break the performance contract by opportunistically refusing to pay large bonuses to those whose performance warrants it — on the basis that "no one deserves that much". These problems suggest that employee-employer trust is crucial in incorporating subjective performance assessments in bonus plans, and that compensation committees and managers must pay careful attention to precedent and the long run effects of their current assessment and reward decisions. One casualty of failure here is trust. And without trust we will have to pay more for risk.

R-34. Encourage managers to build and preserve trust. Because precedent matters we must beware of too much tinkering with the system.

> Hold managers accountable for the long-run effects of their performance evaluations. Encourage them to pay particular attention to the destruction of trust, and the perceived insecurity of contracts, promises, and commitments regarding bonuses and performance measurement when the rules of the game are changed too often by "too much tinkering" with the system.

It is commonly believed that managers should not be held accountable for factors that are beyond their control. This often leads to excuses, irresponsible behavior, and extremely poor incentives. Managers *should* be held accountable for factors that are out of their control, *when* the manager can control or affect the impact of those non-controllable factors on performance.

R-35. Managers should be held accountable for factors that are beyond their control if they can control or affect the impact of those uncontrollable factors on performance.

For example, we would be foolish to ignore the affect of gasoline prices on the performance of a manager of a fleet of vehicles. We want that manager to be cognizant of what will happen to the cost of running the fleet if the price of gasoline goes up or down substantially, and there are certainly things such a manager can do to help the firm prepare for and to adjust efficiently to major changes in gas prices. Holding the manager accountable for the effects of changes in gas prices will motivate him to be creative in managing the impact of those uncertain changes.

VI. Strategic Value Accountability and Compensation Policy[65]

Tensions Between Outside Markets and Internal Management

Recent events reveal pressures impinging on top management teams and boards of directors from both the capital markets and the internal managerial organization. These two groups speak different languages and top management and the board must manage the tensions between the two. The capital markets speak the language of financial results and value creation, paying scant attention to the underlying operational decisions and strategy that drive those results. Managers, particularly those below the executive ranks, do not understand that dialect. They focus, appropriately, on the day-to-day and week-to-week issues surrounding the management of the enterprise and the execution of its strategy.

One "party," the capital markets, effectively ignores the other "party," operating management. And the latter finds the former almost unintelligible. Each perceives the firm and its purposes in very different ways and evaluates performance according to their specific worldview. Neither is universally right on these issues. The capital market's perspective held the upper hand in this tug of war in the last bubble. And in this environment many firms resorted to a damaging practice — using the market's consensus earnings forecast as the primary input into their budgeting process. We believe it is a propitious time for leading firms to break this cycle of dependence to put more balance back into the relations between internal management and external market forces.

The last several years demonstrated that many of the standard solutions for the agency problem failed. Providing equity-based incentives based on stock options grants failed to align executives' interests comprehensively with those of their firms in this period of generally

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65 This section draws on ongoing work by Joe Fuller and Michael C. Jensen.

overvalued equity. Extending those programs to the second, third and fourth level of management did not in the end provide proper incentives to operating management to act in the principals' best interest.

New thinking is required that integrates a firm's internal organizational structure and policies (what we call organizational strategy[66]) with its external competitive strategy, linking them in a mutually supportive way. This will require using more specific local measures of performance than changes in share price or firm value in gauging how an individual executive influences outcomes. That suggests identifying the few, specific decisions or actions within any given executives purview that truly influence outcomes for the firm. This means that firms should design incentives in the internal managerial organization based on those four or five classes of decisions taken within each important level or unit of the organization that make a difference between strategic success and failure.

Rather than relying on legitimate but insufficiently specific measures like improvement in firm value, a company should design metrics for operating managers around successfully executing those high choices in a "high quality" fashion (i.e., a manner consistent with a strategic outcome that supports the creation of value). The principal design logic of every organization should therefore revolve around identifying those decision-making processes and ensuring that the organizational rules of the game support making "high quality" decisions.

In doing this, we believe the logic of strategic thinking for companies will shift from "top down" (or, perhaps more appropriately from outside analysts in) to "bottom-up." Companies should create incentives for executive teams to create assets of lasting value — not only productive and financial assets, but also intellectual and human capital. In some sense, this suggests that Total Quality Management type logic be mapped more explicitly into executive decision-making. In that sense, executive compensation should roll up from the bottom not down from the top or in from outside capital markets. General management should be assessed in terms of the outcomes they generate for firm value through their success in overseeing their organization's effective implementation of an associated strategic logic. Viewed in this way, one could portray the role of top management as supporting value creation in the organization they supervise, rather than imposing it on that organization using the cudgel of capital market's discipline.

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66 See Jensen, 1998, *Foundations of Organizational Strategy*, Cambridge, MA: Harvard University Press.

The Critical Importance of Strategic Value Accountability

Accomplishing the appropriate integration and isolation between the internal management organization and the external capital markets is a delicate and difficult matter. We call this task the management of Strategic Value (for lack of a better label at this time). Simply put, the critical function we are highlighting is not just the formulation and implementation of the firm's competitive and organizational strategy. Strategic Value Accountability is the accountability for the *ultimate value consequences* of the following activities and choices: 1) estimating the long-run value consequences of the alternative strategic choices an organization creates, 2) motivating and managing a unique choice among those alternatives, and 3) implementing (and revising) that choice over time.

Strategic Value Accountability must be assigned to a person or a small group if an organizations' governance and control system is to be complete. We frequently observe executives and boards who are comfortable with steps 1 through 3, but recoil from taking accountability for the value consequences of those choices and actions. The expressed concern is that no one can tell now when and how the capital market will value the choice and implementation of our strategy, especially if it is likely to be years before the fruits of the effort are revealed. One manifestation of this reluctance is reflected in the common complaint that there is no easy or straightforward way to measure the contribution to firm value of a person, group, unit, or division. The oft-recommended solution then is to avoid the problem by estimating the contribution or performance by something we can observe today, say earnings per share, or cash flow, or sales, or margin.

The fact is that these value estimates have to be made and in a well-run organization there will be someone or some group that is fully accountable for managing this task. It seems to us that there are only two candidates, the CEO (perhaps in associating with a small number of top managers) or the Board of Directors. And those organizations that do not face up to the necessity for some entity to be accountable for the value consequences of the choices regarding organizational strategy, competitive strategy, and implementation will be at a serious disadvantage.

A key challenge in implementing Strategic Value Accountability is deciding how to measure and reward the performance of the person or entity that is guiding the formulation and execution of the firm's organizational and competitive strategy. That person or entity cannot be measured on the degree to which it meets the strategic benchmarks that it sets without putting us back in the budget/target setting game (discussed above) in which we pay people to lie and destroy value. Indeed, we believe the only way to measure and reward this person or entity is

through the realized long-run value consequences of the strategy and its execution. And this means that the uncertainty regarding what the markets will reward in the future and how they will do it will be born by this person or entity.

We believe few boards or management teams consciously address the issue of who will be accountable for these value consequences. And often that has meant that no one is accountable. This leads almost surely to a competitive disadvantage. There are organizational forms that have executed this function better than others. Their growth and value creation over the last three decades reflects their comparative advantages in strategic value accountability. (Although many have suffered poor results in the post bubble years, there have been few of the catastrophic failures seen in the publicly held sector.)

LBO Associations, Venture Capital, and Private Equity Funds are organizational examples where strategic value accountability is generally well executed. In these organizations the decision rights and accountability for managing relations with the capital markets generally lies with the board.[67] The KKR's or Kleiner Perkins of the world are experts in valuation and in dealing with the capital markets. They play the major role in the interface with the players in these markets. While they respect capital markets they do not slavishly follow their every whim. They also have expertise in the formulation and execution of organizational and competitive strategies in their operating organizations (obviously all of which must be complemented by the ability to choose highly talented managers with deep specific knowledge of their businesses). The partners in these innovative organizations then take the strategic value accountability for creating governance systems that effectively work with the operating managers and for integrating and coordinating the competitive and organizational strategies of their operating companies with the capital markets.

In these organizations long run value (as represented by IPO values, or the value strategic buyers will pay for the entity) is the measure of performance. The rewards for the partnership headquarters responsible for the governance system and its value results are directly related to the value created in the portfolio firms. For example, LBO Association partners regularly receive a 20% override on the 60% to 80% of the firm's equity held by their buyout funds. Thus they

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[67] For a description of the typical LBO Association as an innovative model of management and governance see Jensen, "Active Investors, LBOs, and the Privatization of Bankruptcy"; Jensen, 1989b, "Eclipse of the Public Corporation", *Harvard Business Review,* V. 67, No. 5: pp. 61-74 (Revised 1997) (available from the Social Science Research Network eLibrary at: http://papers.ssrn.com/Abstract=146149). For a description of the workings of the typical venture capital organization see Sahlman, 1990, "The Structure and Governance of Venture-capital Organizations", *Journal of Financial Economics,* V. 27, No. 2: pp. 473-521.

receive roughly 12% to 18% of the increased equity value created in the venture. Venture capital funds are similar.

In the typical publicly held corporation it is often not clear where the Strategic Value Accountability lies or should lie. In many corporations it is not assigned to or accepted by anyone, and this is a recipe for underperformance and value destruction. Sometimes it is best held in the hands of the CEO or a small group of top-level managers, in other cases where the relevant financial and value expertise lies in the board of directors it is best held there.

Let's deal with a simple case to illustrate the thinking involved here. Suppose we have a CEO whom the board believes is deeply knowledgeable about the organizational and strategic imperatives the firm faces. He is then a natural to lead the strategy formulation and execution process. He leads the initiatives that produce relevant strategic milestones and how to motivate the organization to achieve them. But we cannot measure his performance and base his rewards on whether the strategic milestones are achieved. If we do so we are back into the paying-people-to lie syndrome with all the gaming and associated value destruction that entails. In this situation, the solution is to measure and reward the CEO who has accepted the Strategic Value Accountability with substantial equity or equity-like claims that are sufficiently long term so as to avoid the temptations for short-term manipulations. This means that the unwinding constraints on the CEO's incentives must be explicitly a part of the compensation system and they must be rigorously enforced.

This solution should work well in normal times, but will be difficult for the board to manage if the firm becomes substantially overvalued for all the reasons we enumerated in the section above on the agency costs of overvalued equity.

As we said above, in many cases this critical strategic value accountability is not formally assigned to, or accepted by, anyone in the management and governance structure. These situations tend to be those where the responsibility is de facto vested in the CFO and/or director of investor relations who usually are in no position to wield the necessary power and influence over the CEO, Board and operating organization to get the job done properly. They simply do not have the decision rights to do so. And those that do, the CEO and Board, are not taking on the strategic value accountability. This situation is classically associated with the state where the management and governance structure attempts in various ways to deny the relevance of the capital markets to the firm and anyone's accountability for value creation — often under the mantra that holders of its securities are not long-term investors and therefore should be ignored to one degree or another.

The issue is not whether some or all security holders should be ignored or catered to. The issue is whether the governance system of the organization has faced up to the difficult and demanding task of assigning the Strategic Value Accountability to individuals or entities in the system who have the talent, desire, and proper rewards and punishments to get the job done as well as it can be done.

Those organizations in which strategic value accountability is not assigned (or is vaguely assigned) typically have performance measurement and reward systems that are nominally based on value creation (say with equity or options) but are vitiated when the value consequences turn out badly. Repricing and reissuing underwater options are but one example of multitudes of ways in which compensation committees avoid holding anyone accountable for the value consequences of the organizations actions and experience.

R-36. The compensation committee should take the lead in seeing that Strategic Value Accountability is clearly assigned to those who have the unique combination of business judgment, financial knowledge, wisdom, and willingness to take on the critical task of managing the interface between the operating organization and the capital markets so as to create value.

Let us be clear that the assignment of the decision rights for managing relations with the capital markets is much more than simply talking to investors and institutions to assess their interests, opinions, desires and advice. It goes to the core of what it means to direct the organization so that choices are made that will maximize the chance of competitive success and the efficient use of society's scarce resources (human, capital, technological and material) entrusted to the organization. Compensation committees must confront these issues. The committee must see to it that this talent and capacity is recruited into the organization and retained. They must see to it that those who have accepted the Strategic Value Accountability task are held to the value consequences even when they turn out poorly.

The importance of risk and trust in management and governance

If one looks at the root causes of the epic failures in governance that befell a number of major global companies recently, risk is a common denominator. Boards failed to comprehend the risks being run by WorldCom in its unbridled acquisition campaign, by Enron in its undisciplined investments in international assets and special purpose entities, by Vivendi in assuming that synergy would arise from a collection of assets in related, but nonetheless, distinct industries. In those instances and a host of less celebrated cases, the perceived incentive and reward systems rewarded managers for minimizing or obscuring the operating risks incurred by stretching to reach budget goals. And they often did not hold managers accountable for the value destruction that occurred.

Top-down processes tend to motivate lower managers to take risks with the enterprise's future competitiveness in order to meet the current performance demands (as set by senior management and its dialogue with the capital markets). The "cascade" of executive compensation must account for this. Boards must encourage and compensate senior management to investigate and take a conscious posture against unwise risk taking, and management must ensure that the traditional budgetary target and bonus process does not destroy value by encouraging the assumption of unmanaged or hidden risks.

VII. Relations with Capital Markets: The Earnings Management Game

The publicly held firm and its management team are subject to substantial rewards and penalties from the capital markets. The reactions of securities analysts, investors and financial institutions to managements' policies and announcements play an important role in the determination of stock prices, the ability of the firm to raise debt and equity capital, and therefore on the success or failure of its competitive strategy. Therefore it is important for the compensation committee to understand the complex dynamic relationship between the top-level management team and the capital markets in some detail. While the board as a whole must play a role in ratifying the firm's strategy for dealing with the capital markets, the compensation committee must take that strategy and the forces of the capital market into consideration in formulating its compensation policies for the top management team. Our purpose in this section is to review the more important aspects of the relationship with the capital markets surrounding the information flows between the firm and the markets.

How Markets Reward and Punish Managers

We've explained in Section V how managers in typical annual budget-based compensation systems have pay-performance relations that are non-linear, kinked or discontinuous. We also summarized how these systems induce managers into gaming the system in ways that destroy value; both by destroying the critical information required to coordinate disparate parts of large complicated organizations and by taking actions that destroy value in order to meet their budgeted targets.

Interestingly, the relation between a firm's board and top-management team and the capital markets has resulted in an equilibrium that replicates many counterproductive aspects of budget or target-based bonus systems. When a firm produces earnings that beat the consensus analyst forecast the stock price rises on average by 5.5%. For negative earnings surprises the stock price falls on average by –5.05%. Interestingly the stock price rises by 1.63% for zero surprises.[68]

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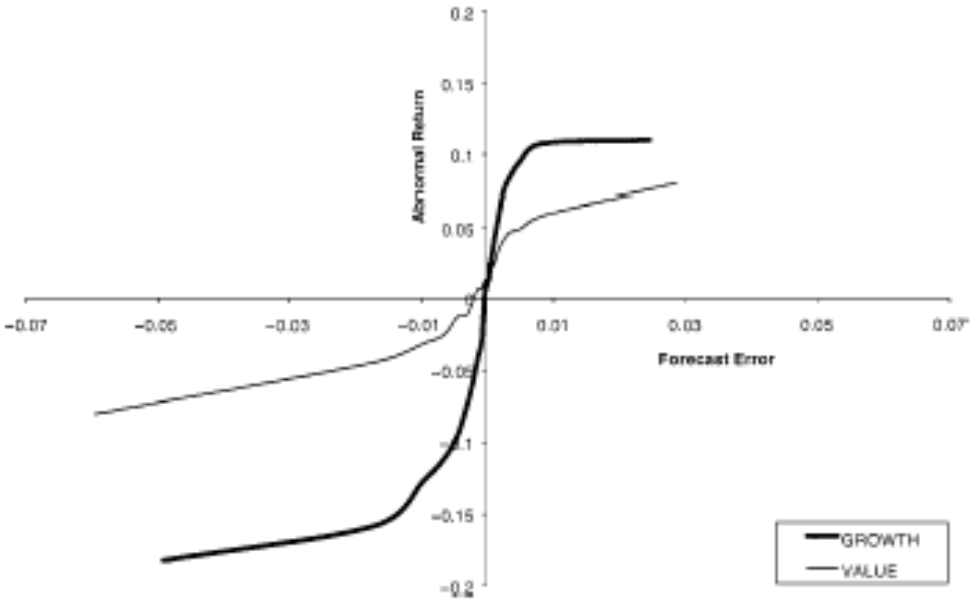
[68] See Skinner and Sloan (2002), p. 297. Note that the average stock price response is an abnormal quarterly stock return (i.e., adjusted for the performance of a size-matched portfolio) for the 1984-1996 period. The figures presented by Skinner and Sloan appear to be larger in magnitude than the findings reported by Bartov, Givoly and Hayn, 2002, "The Rewards to Meeting or Beating Earnings Expectations", *Journal of Accounting & Economics,* V. 33, No. 2: pp. 173-204 (available from the Social Science Research Network eLibrary at: http://papers.ssrn.com/paper=247435), who report that when initial forecasts are pessimistic, beating the final

Figure 12 Market-Adjusted Returns for Growth & Value Firms in Response to Quarterly Earnings Surprises



Note: The graph plots quarterly abnormal returns for growth and value firms as a function of earnings surprise at the end of the quarter. Forecast error is measured as the earnings surprise relative to the quarter-end stock price. Data is from I/B/E/S database for the final month of the fiscal quarter for which earnings is being forecast. Sample size is 103,274 firm-quarter observations in the period 1984-1996.

Source: Skinner and Sloan (2002), p. 299.

Thus there are substantial rewards for firms that meet or beat the analysts' consensus forecast and penalties for those that miss it. In addition, as Figure 12 shows, the relation between the magnitude of the quarterly abnormal stock return and the quarterly earnings surprise has the same general ramped shape as the typical non-linear managerial bonus pay-performance relation illustrated in Figure 10 (p. 76).

Figure 12 also shows that growth stocks (i.e., stocks trading at a high market-to-book ratio) react more strongly to earnings surprises of a given magnitude than non-growth stocks (what the profession calls value stocks). Beating the analysts forecast by 1% (measured by the ratio of the earnings surprise to the quarter-end stock price) leads to a 10% abnormal stock price increase for growth stocks. But missing the analyst forecast by 1% leads to a price decline of 15%. While the shape of the price reaction for non-growth stocks is similar the magnitude is smaller for any

consensus forecast yields a 3.2% higher quarterly abnormal return than for firms that fail to meet the final consensus forecast. Their study covers a somewhat different period, 1983-1997, uses a different methodology for computing abnormal returns (a beta-adjusted return), and they present their findings in the form of the expectations-surprise path.

given error. This makes sense given that earnings farther into the future represent a larger fraction of the value of a growth stock than for non-growth stocks.

This simple empirical regularity — a highly non-linear relation between quarterly earnings surprises and abnormal stock return — provides strong incentives for top management to focus on earnings and surprises. Thus stock-price reactions to earnings announcements reward and punish managers in several ways. Favorable stock-price reactions reward firms and managers by making capital available to them at lower cost in both the debt and equity markets. And to the extent managers have equity-based compensation such as options, stock, or restricted stock they are directly rewarded or punished through changes in their wealth. Thus, while no one explicitly designed it this way, the earnings game managers are involved in with analysts creates kinked pay-performance relations and therefore creates incentives for managers to manipulate earnings to meet or beat the analysts forecast, to manipulate analysts forecasts, and to take actions to meet those forecasts even when those actions destroy long run value.

Ethical and Value Consequences of the Earnings Management Game

Indeed, for more than two decades it has generally been understood that part of the job of every top-level manager has been to "manage earnings". What people have not generally faced up to are the ethical issues this practice raises and the long-run value consequences that managing earnings engenders.

Let's be clear: when "managing earnings" means taking actions that are anything other than those required to maximize the long-term value of the firm, managing earnings amounts to lying. And it amounts to lying to the very stockholders or potential stockholders to which managers have a fiduciary responsibility. We use this strong language because these practices became common in the culture of top management and boardrooms with almost no discussion, realization or confrontation of the ethical or value issues involved. Indeed, these practices were already widely ensconced in the worldwide management culture as a result of the almost universal prevalence of the budget-based bonus and promotion systems discussed above.[69] Hence, one important potential control mechanism, the integrity of managers and board members on this issue became powerfully and effectively disabled in a way that was virtually invisible to those who were involved in the system. Simply put, "it was just the way things were done", and

[69] I/B/E/S (Institutional Brokers Estimate System) began compiling consensus earnings estimates in the early 1970s (followed by competitors First Call, Zacks, and Nelson's). And when firms began using those estimates as targets in their budgets and management bonus plans, executives' motivation to meet or beat the analysts' forecasts elevated so that top managers and analysts became even more tightly linked.

few could imagine doing it any differently. It's time to change. And the change probably has to start with the compensation committee and the board taking action to invest in the integrity of their organization and its relation to the capital markets.

How Managers Reward and Punish Analysts

The earnings management game, which itself is an agency problem within corporations, as well as in investment banks and the analyst community, extends beyond the manipulation of currently reported earnings to managing the analysts to affect their forecasts. This happens when managers reward analysts who make forecasts they prefer and punish those who issue forecasts they do not like. Such rewards and punishments are illustrated by the frequent practice of providing cooperative analysts favorable treatment in access to information about the firm — a practice that has since been made illegal by the SEC's October 2000 Regulation Fair Disclosure (FD) — as well as granting lucrative commissions for banking or other services to firm's whose analysts cater to management's preferences. And when investment banks or other financial institutions cave in to such pressures or when they request such favorable treatment from clients or potential clients they are indulging agency problems of their own and damaging their reputations and integrity.

Prior to Regulation FD, private communications between research analysts and the companies they were covering were commonplace. In one instance, a Bear Stearns banking client emailed a Bear Stearns analyst following a downgrade of the client's stock, "Your earnings estimates are on track, however, given the downgrade, I sure would have liked to see you give us a lower bar on revenue…[W]hile we affirmed the revenue estimate, they were definitely a stretch. Seems a shame to waste a downgrade by not buying the opportunity for us both to over-perform going forward…"[70]

Unfortunately, there is substantial evidence that the collusive cooperation requested and expected in this communication to the Bear Stearns analyst commonly took place. The private exchanges between analysts and company executives, dubbed guidance, were the subject of a survey conducted by the National Investor Relations Institute in 2001. Guidance includes, for example, company review and critique of analysts' spreadsheet models. Making use of the survey results, Hutton (2003) studied analyst forecasts for 457 guidance firms and for another 59 no-guidance firms over the 1998-2000 period. Where firms provided guidance, analysts' quarterly forecasts were downwardly biased (therefore rewarding managers by giving them the

[70] SEC, 2003, "Securities and Exchange Commission v. Bear Stearns & Co., Inc.," U.S. District Court (Southern District of New York) , ¶ 67.

ability to show positive earnings surprises) but more accurate (as measured by lower mean-squared error) than firms that provided no guidance. Given that analysts are rewarded in part for accuracy, it is not surprising that analysts would trade off unbiasedness for accuracy.[71] Both the analysts and the manager's win — in the short run — while their ultimate clients, shareholders, lose.

It became general practice for investment banking firms to rely on their analysts to help generate lucrative new banking business and to compensate the analysts for doing so. For example in 2000 Credit Suisse First Boston[72] offered extra pay (in addition to salary and a cash performance bonus) to a prospective analyst for helping the firm win stock and high-yield debt transactions. Depending on the level of contribution in winning the business, the analyst could earn 1% to 3% of the firm's net profit per transaction up to a capped amount of $250,000. Some analysts reportedly were rewarded for a half-dozen such transactions annually.

The threat to drop analyst coverage was another common tactic used by investment banks to strong-arm companies to give them their banking business — a practice they never revealed to the investors who were using the bank's investment analysis and recommendations. In another internal Bear Stearns email, dated April 3, 2000, one investment banker wrote to discuss a banking client's decision to drop Bear Stearns from a follow-on offering. He wrote, "I expressed significant disappointment with the fact that they neglected to discuss this issue with us prior to this time and that they left us no choice but to drop research coverage and trading, since they obviously did not value our support to date."[73]

In the wake of US financial scandals, analyst behavior has justifiably come under intense scrutiny. It is believed that highly favorable analyst coverage and recommendations (that did not reflect the privately expressed opinions of the analysts) played a role in heightening and prolonging the recent bubble and the enormous losses that followed. A recent investigation of ten prominent investment banking firms resulted in the so-called $1.4 billion (in fines and penalties) Global Research Analyst Settlement.[74] In addition, two well-known "star" analysts, Jack

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71 See Hong and Kubik, 2003, "Analyzing the Analysts: Career Concerns and Biased Earnings Forecasts", *Journal of Finance,* V. 58, No. 1: pp. 313-351 for additional information about analyst forecasts and career rewards and punishments.

72 Credit-Suisse example from Gasparino, 2002, "Analysts' Contracts Link Pay to Deal Work", *Wall Street Journal,* May 6, p. C1.

73 SEC, "Securities and Exchange Commission v. Bear Stearns & Co., Inc.," ¶ 54. Ultimately, in this case the Bear Stearns analyst, despite pressure from the Head of Research, did not drop coverage of the unnamed company.

74 The ten firms that were investigated and agreed to pay penalties as part of the settlement agreement are Bear, Stearns, Salomon Smith Barney, Credit Suisse First Boston Corporation, Goldman, Sachs, J.P. Morgan Securities,

Grubman (formerly of Salomon Smith Barney) and Henry M. Blodget (formerly of Merrill Lynch), paid fines of $15 million and $4 million, respectively, and were permanently barred from the US securities industry. The investigation focused on the relationship and dealings between the investment bankers and their research analysts. Each of the investment banks was charged with violations of various NASD and NYSE rules. Conflicts of interest between investment banking and research, and unwarranted or exaggerated claims were often among the claims leveled by the SEC.

Evidence on the Collusive Nature of Earnings Forecasts and Realizations

The earnings management game has produced a suspicious set of phenomena that bear further research, investigation and explanation. In 1997, for example, Microsoft had equaled or beat analyst estimates in 41 out of the 42 quarters since going public.[75] If analysts were just as likely to over-estimate as under-estimate a company's quarterly earnings and there were no collusion or gaming by either Microsoft or the analysts, the likelihood of the company outperforming the forecasts in 41 out of 42 quarters would be less than 1 in 100 billion.[76] Indeed, in 2002 the SEC investigated Microsoft for lying about its earnings (in this case Microsoft used inappropriate reserves to report earnings that were smaller than would otherwise have been reported).[77] Microsoft appears to have been behaving much like many managers in typical budget-based bonus systems that wish to hide very good results because of a fear that others will simply raise the bar for the future. But the data seem to indicate that the practice of manipulating earnings extends far beyond just a few companies.

Research shows that analysts tend to issue systematically positively biased forecasts of one-year-ahead future earnings (See Figure 13). These forecasts then are revised down

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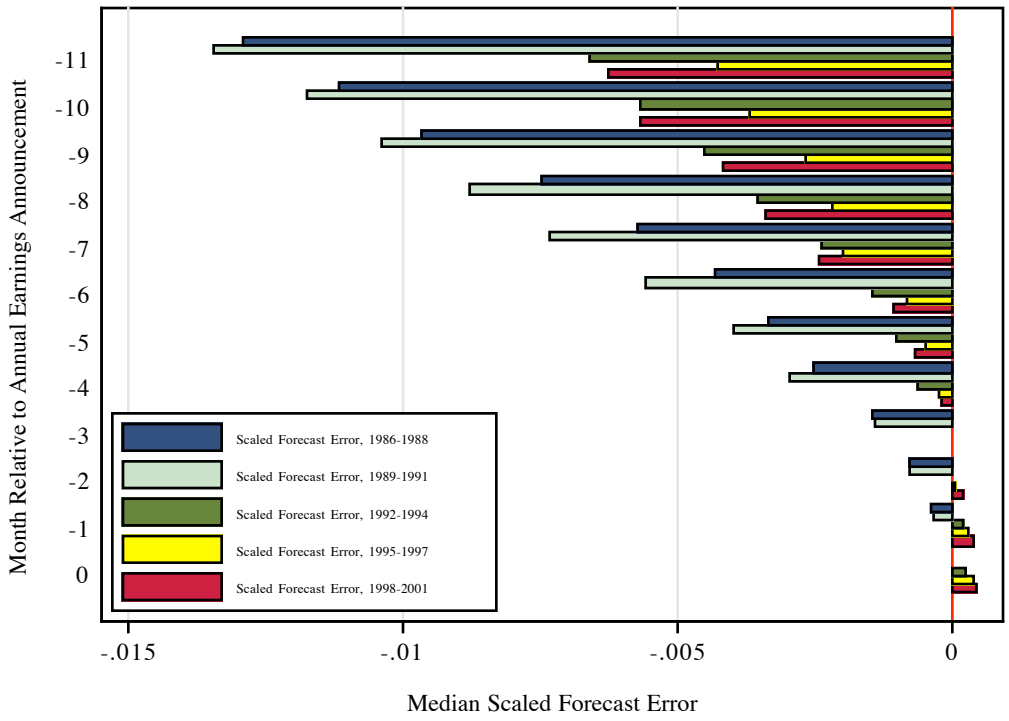
Lehman Brothers, Merrill Lynch, Pierce, Morgan Stanley, UBS Warburg, and Bancorp Piper Jaffrey. See http://www.sec.gov/spotlight/glbalsettelement.htm

75 Fox, 1997, "Learn to Play the Earnings Game (and Wall Street will Love You). The Pressure to Report Smooth, Ever Higher Earnings Has Never Been Fiercer. You Don't Want to Miss the Consensus Estimate by a Penny—And You Don't Have To", *Fortune*, V. 135, No. 6, March 31, p. 76+.

76 Given the simplistic assumptions in the text above, the probability that analysts would underestimate earnings in 41 out of 42 quarters would be $42 \times (1/2)^{42}$.

77 As documented in the SEC's cease-and-desist order, Microsoft "…failed to maintain internal controls that were adequate under the federal securities laws. Specifically, during the relevant period, Microsoft maintained between approximately $200 million and $900 million in unsupported and undisclosed reserves, a significant portion of which did not comply with GAAP, which resulted in material inaccuracies in filings made by Microsoft with the Commission." See SEC, 2002, "In the Matter of Microsoft Corporation, Respondent: Order Instituting Administrative Proceedings Pursuant to Section 21C of the Securities Exchange Act of 1934, Making Findings and Imposing Cease-and-Desist Order," June 3, 2002, Securities and Exchange Commission (an electronic version is available at: http://www.sec.gov/litigation/admin/34-46017.htm), p. 2.

Figure 13 The Puzzling Systematic Positive Long-Term Bias and Short-Term Negative Bias in Analyst Earnings Forecasts



Source: Richardson, Teoh, and Wysocki (2003). Data provided through private conversations with one of the authors.

systematically over time to more closely approximate the actual realized earnings announcement for the year. Indeed, prior to 1992, by the end of the forecast year, analysts' earnings forecasts would equal actual earnings and thus show a zero forecast error. This is sensible because if the error did not end up at zero analysts could easily take the bias into account, and thereby eliminate it.

However, since 1992 analysts average forecast errors remain slightly positive at the time of realization of actual earnings and this is puzzling. As one study concludes: "Or, to put it in more concrete terms, how could analysts continue to underestimate Microsoft's quarterly earnings 41 times in a row?"[78]

Thus an equilibrium has evolved in which analysts systematically *overestimate* the longer-term future earnings and then "walk down" those forecasts as the actual date of the earnings report approaches. And in the end they systematically *underestimate* the final earnings. The result gives management the best of both worlds. Copeland, Dolgoff, and Moel (2002) show that

78 Bartov, Givoly and Hayn, "The Rewards to Meeting or Beating Earnings Expectations", p 203.

farther out earnings forecasts have a larger effect on the stock price than next quarter's earnings so the positive bias for the far out earnings helps justify excessively high stock prices. Then when the bias turns negative at the actual end of quarter announcement, managers and firms benefit from a positive earnings surprise that further increases the value of the stock.

If this interpretation is true it implies that investors are systematically being fooled into overpaying for these stocks. And this appears to be consistent with the data. As Skinner and Sloan (2002) explain, research by La Porta (1996) and Dechow and Sloan (1997) shows that "analysts' long run EPS forecasts are systematically overoptimistic for growth firms, and that the magnitude of the over optimism in these forecasts is systematically related to the inferior stock price performance of growth firms." (p. 291)

What is puzzling is why the market does not appear to respond negatively to the walk-down in the forecasts and then responds positively to the final earnings surprise.[79] It almost appears that collusion is taking place, but there is no indication as to how this occurs.[80] This is clearly an issue that requires further research and understanding.

What matters here for board policy is that once a firm's managers get into this earnings management game with analysts and the market, there is no way for them to win in the long run — except by pure luck. Pushing expenses into the future and bringing revenues from the future to the present to meet analyst forecasts only compounds the problem of meeting the forecasts in the future. And to the extent that doing so actually destroys future value, it is even less likely that management will win the game.

In the end, it appears that analysts understand the game because when a firm misses an earnings forecast by even a penny the stock can suffer a large price decline. The sharp decline in stock prices for growth firms in response to small negative errors in Figure 12 is consistent with this observation. The argument is that if management can't find another penny to report they must be in serious trouble.[81] And at this point the stock price penalty can be extremely severe

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[79] Indeed, Ibid. , document that firms are rewarded with a statistically significant stock price increase for firms with positive earnings surprises even when top management appears to have managed earnings (through the use of accounting accruals) or expectations (where there has been a walk-down resulting in a positive earnings surprise).

[80] The sophisticated business press is aware of these peculiarities. For example, Nocera, 1997, "Who Really Loves the Market? Securities Analysts are Wall Street's New Stars", *Fortune*, V. 136, No. 8, October 27, p. 90+ summarizes analyst coverage of Intel: "The great bulk of the 67 analysts who track Intel follow the company's guidance slavishly. They put their earnings estimates just low enough to make it possible for the company to 'surprise' them quarter after quarter. They spend most of their time assuring clients that Intel will 'make the quarter,' rather than searching anything more fundamental to say about the company."

[81] "At least partly by this expectational interplay, the price of missing by a penny has risen sharply . . . In the growth stock fraternity, 'missing by a penny' now implies the height of corporate boneheadedness — that is, if you

and therefore damaging to the firm's access to the capital markets for funding and to the wealth of managers with substantial equity-based compensation.

In their excellent study of "Earnings Management To Exceed Thresholds," Degeorge, Patel, and Zeckhauser (1999) examine quarterly earnings data on 5,387 firms with over 100,000 quarterly earnings observations (although some of the samples are considerably smaller than this). Their results show dramatically that the statistical distribution of forecast errors is not symmetrically distributed about zero, as one would expect if such errors were random and unbiased. Figure 14 shows the deviations are what we would expect from an earnings process that is being manipulated. There are far too many zero or slightly positive quarterly earnings forecast errors (of +1, +2, and +3 cents per share). In addition, there are far too few forecast errors of –1, –2 and –3 cents per share as well as to few of +4 cents or above per share.

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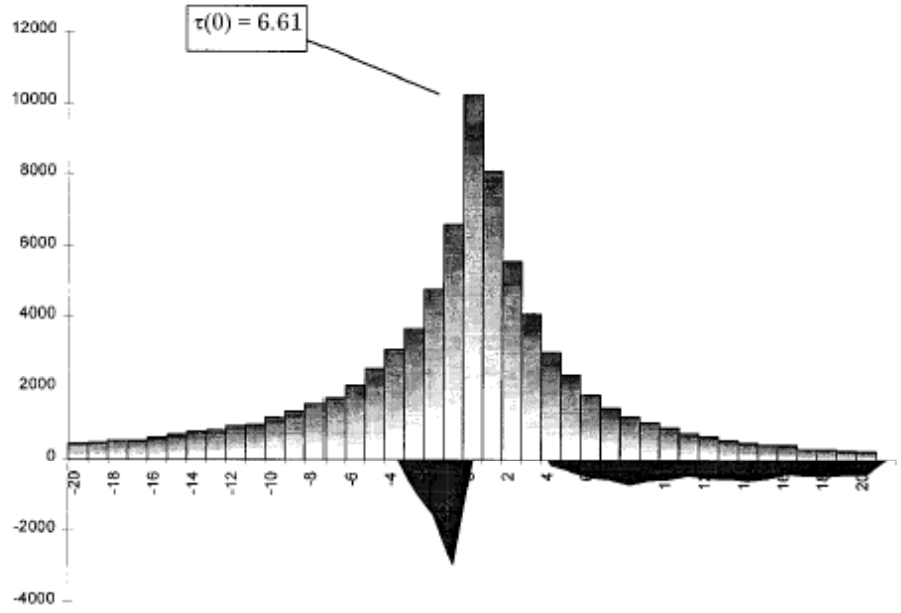
couldn't find that extra penny to keep Wall Street happy, then your company must really be in trouble, and since missing by a penny is already going to send your stock plummeting, you're better off missing by a dime or two and saving those earnings for the next quarter." From Fox, "Learn to Play the Earnings Game (and Wall Street will Love You). The Pressure to Report Smooth, Ever Higher Earnings Has Never Been Fiercer. You Don't Want to Miss the Consensus Estimate by a Penny—And You Don't Have To", .

Figure 14 More Evidence on Lying About Earnings: Frequency Distribution of Earnings Per Share Forecast Error



Note: The figure plots the distribution of the forecast error, the company's EPS less the analysts' consensus EPS forecast, over the quarters 1974-1996. The black area below the graph represents the density "shortfall" shortfall relative to a bin equidistant from zero on the other side of the histogram. The $\tau(0)$ refers to a test-statistic devised by the authors to assess statistically a discontinuity in the distribution. In this case, the statistic rejects the hypothesis that the density is smooth around forecast errors of zero.

Source: Degeorge, Patel, and Zeckhauser (1999), Figure 6, p. 20.

The bars to the right of zero in Figure 14 represent positive earnings surprises and those to the left, negative earnings surprises. The blackened area beneath the graph denotes the "shortfall" of observations in that area compared to what would occur if the forecast error distribution were symmetric. Thus, the earnings management process is yielding too few small negative earnings surprises, and too few large positive earnings surprises. This is consistent with management under-reporting earnings that would yield large earnings surprises (like the Microsoft example described above) and using the "stored" earnings to generate more small positive earnings surprises. This then yields too many large negative earnings surprises consistent with what we would expect to happen when companies finally lose the earnings management game. Their results are a strong indictment of the erosion of integrity in the earnings reporting process. The authors quote the conclusion of a study by Bruns and Merchant (1990) "we have no doubt that short-term earnings are being manipulated in many, if not all, companies."

Other evidence is consistent with the hypothesis that top management is aware of the walk-down phenomenon and that they often exploit the phenomenon to time the sale of shares. As

pointed out by Richardson, Teoh, and Wysocki (2003), due to the 1988 Insider Trading and Securities Fraud Enforcement Act, most firms have adopted insider trading blackout periods that typically cover the two months prior to an earnings announcement. As a result, management is effectively constrained to transact only in the month following the quarterly announcement. [82] They find, for example, that when net insider sales are positive after an earnings announcement the frequency that the announcement was associated with a positive earnings surprise is 66% that is significantly different from the 54% frequency for firms without subsequent net insider sales. Looking at it somewhat differently, the probability that insiders will sell shares following a positive (including zero) earnings surprise is 70% and only 60% following a negative earnings surprise.[83]

R-37. Firms must restart the conversation between corporate managers and Wall Street by "just saying no" to the old game of earnings management and earnings guidance. [84]

> This will not be easy. However, eliminating or reducing the influence of these corrupting forces on the firm will be an important step in bolstering the integrity of corporations. There is a window of opportunity now that analysts and the financial institutions that employ them have fallen into disrepute. It is the analyst's job to forecast earnings and to estimate their implications for value. People are highly aware of the malaise that has gripped the business world. Executives are wondering how to invest in the integrity of their companies. Researchers are starting to examine some of the issues. But this window won't remain open forever and if we don't seize this moment to identify the problem, talk about it, and learn from it, and change the system we could find ourselves trapped once again in a vicious, destructive cycle. And let's be clear, ending the earnings management game (as Coca Cola, Gillette and USA Networks, and others have), does not mean ending communications with analysts and the capital markets.

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82 In the US, the Insider Trading and Securities Fraud Enforcement Act of 1984 and 1988 limit trading by company insiders in the company's stock. In response to the 1988 law, firms designed and instituted policies regarding insider trading. Over 80% of the plans bar option exercises and stock sales except after a relatively short window following earnings announcements. See Bettis, Coles and Lemmon, 2000, "Corporate Policies Restricting Trading by Insiders", *Journal of Financial Economics,* V. 57, No. 2: pp. 191-220.

83 Private communication to the authors from Siew Hong Teoh, 2003.

84 See Fuller and Jensen, "Just Say No To Wall Street: Putting A Stop To the Earnings Game", for a full discussion.

R-38. Senior managers must communicate with the capital markets. They must understand what drives value in their organization and align internal goals with those drivers, not with analysts' expectations.

To limit wishful thinking, managers should reconcile their company's projections to industry and rivals' projections. When the company's expectations lie outside what is widely viewed as the industry's growth rate, managers should explain how and why they will be able to outperform their market. Some will argue that making this all clear to the analysts will reveal valuable information to their competitors. "To this, we have a simple response: If your strategy is based on your competitor not knowing what you are doing as opposed to not being able to do what you can do, you cannot be successful in the long run no matter who knows what." (Fuller and Jensen (2002))

VIII. Conclusions

In their 1990 study of CEO compensation Jensen and Murphy (1990a) had this to say: "Are current levels of CEO compensation high enough to attract the best and brightest individuals to careers in corporate management? The answer is, probably not."

As the reader of this report has undoubtedly surmised, Jensen and Murphy would not give that answer today. Indeed, we have emphasized here that while executive compensation can be a powerful tool for reducing the agency conflicts between managers and the firm, compensation can also be a substantial source of agency costs if it is not managed properly. And as we've summarized, there is substantial evidence that we can do much better in the future.

While our ability to characterize the phenomenon underlying recent problems in executive compensation is not perfect, we are confident that the causes are systemic. The creation of a new regime in compensation practice will entail considerable thought. Otherwise, one risks re-creating the type of systems failure we have witnessed unfold in many major companies over the last few years.

In addition, the changes required to put balance back in the compensation system will not be easy to implement. The issues are complex. There will be conflict at the highest of corporate levels, and there will be mistakes made. But this is a time where wise and forward-looking managers and boards can achieve a competitive advantage by facing the difficult choices in compensation, governance, and relations with the capital markets. It is a time in which proper investments in the integrity of the organization and its systems will generate considerable benefits in both the short and long run.

Wise CEOs as well as wise board members will encourage these investments because they will understand that well-functioning governance and monitoring systems will help to ensure not only organizational success, but personal success. The evidence of the damage to personal reputations as well as organizations is in the daily headlines, not only in the US, but also in the rest of the world. And even for some who have succeeded in preserving wealth acquired in the face of scandal, and have succeeded in avoiding jail, the question remains, how good is life without honor and respect?

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