Essay

ARE AMERICAN CEOS OVERPAID, AND, IF SO, WHAT IF ANYTHING SHOULD BE DONE ABOUT IT?

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INTRODUCTION

The genesis of this article is a lecture on executive overcompensation that I gave at the University of Pennsylvania in October 2006, and the article was substantially completed shortly after I gave another version of the talk in March 2007 at Stanford University—eighteen months before the beginning of the depression in which (I am convinced) the nation now finds itself.[1] Even back then the question whether executive compensation in publicly owned American companies was in some sense excessive was much in the news.[2] But now an affirmative answer is accepted not only by many

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1. *See* RICHARD A. POSNER, A FAILURE OF CAPITALISM: THE CRISIS OF '08 AND THE DESCENT INTO DEPRESSION (forthcoming).

2. *See, e.g.*, Joann S. Lublin & Scott Thurm, *Money Rules: Behind Soaring Executive Pay, Decades of Failed Restraints*, WALL ST. J., Oct. 12, 2006, at A1; Aaron Lucchetti & Joann S. Lublin, *Grasso Is Ordered to Repay Millions in Compensation*, WALL ST. J., Oct. 20, 2006, at A1; Gretchen Morgenson, *Corporate America's Pay Pal*, N.Y. TIMES, Oct. 15, 2006, § 3 (Business), at 1; Floyd Norris, *Rethinking Risk's Role in Bosses' Pay*, N.Y. TIMES, Oct. 12, 2007, at C1; Eduardo Porter, *More Than Ever, It Pays to Be the Top Executive*, N.Y. TIMES, May 25, 2007, at A1; Louis Uchitelle, *Revising a Boardroom Legacy: An Early Advocate of Paying Chiefs Well Now Wants Them to Prove They Earned It*, N.Y. TIMES, Sept. 28, 2007, at C1.

leading scholars[3] but by almost the entire nation, including many chief executive officers. The curtailment of executive compensation has been a feature of the bailouts by which the government has sought to limit the consequences of the economic collapse. At first the curtailment was ad hoc, but the government has now decided to cap at $500,000 the annual salary of senior executives of banks or other financial firms that (from now on—the new policy is not retroactive) receive bailouts from the government.[4]

The crisis largely vindicates my analysis, but it also strengthens it. The problem of executive compensation is not only real; it is more serious than I believed it to be, in respects explained in this latest version of my thinking about the problem. That said, I am not enthusiastic about the new policy about senior executives of financial firms that receive bailouts. I believe that to impose such a limitation at this time, in the midst of a depression, is a distraction that will not promote recovery from the depression, but on the contrary will retard it by increasing the uncertainty of the political environment in which the financial sector finds itself. That uncertainty, which a cap on compensation can only increase (as well as distracting executives from their jobs by causing them to adjust their personal finances and no doubt to seek ways of circumventing the cap), will complicate efforts by the banking industry to get back on its feet. But that is a detail, so far as this paper is concerned, which is addressed to the general problem of executive overcompensation.

Four issues need to be addressed: What does "excessive" compensation mean? Is the compensation of American CEOs excessive (or was it, on the eve of the financial crisis that has sent the compensation of many CEOs plummeting)? If so, what are the consequences? If there are significant negative consequences, what if

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3. *See, e.g.*, LUCIAN A. BEBCHUK & JESSE M. FRIED, PAY WITHOUT PERFORMANCE: THE UNFULFILLED PROMISE OF EXECUTIVE COMPENSATION 1–12 (2004). Michael Weisbach agrees that Bebchuk and Fried have presented "fairly persuasive" evidence that corporate executives "control their own boards and . . . maximize their own compensation subject to an 'outrage constraint,'" though he disagrees with their proposals for reform. Michael S. Weisbach, *Optimal Executive Compensation Versus Managerial Power: A Review of Lucian Bebchuk and Jesse Fried's Pay Without Performance: The Unfulfilled Promise of Executive Compensation*, 45 J. ECON. LITERATURE 419, 419, 423–26 (2007).

4. Congress, as part of the stimulus bill signed into law on February 16, 2009, has imposed even more stringent caps on the compensation of executives of recipients of bailout money. I do not discuss these.

anything should be done to prevent them? My analysis is largely a synthesis of the existing literature; if there is a novelty, it is my emphasis on methods of overcoming agency costs that are available to government and charitable agencies but *not* to business corporations. My focus on CEOs is mainly in the interest of simplification; most of the analysis applies to other top-tier corporate managers.

I. AGENCY COSTS AND COMPENSATION

I do not think it would be fruitful to try to define "excessive" compensation with reference to an ethical concept of a "just" reward, a concept that might be based for example on notions of an acceptable ratio between the compensation of the highest-paid and lowest-paid worker in an organization. In any event, I shall not try to do so. Rather, I shall define excessive compensation in what seem to me the correct economic terms: compensation is excessive when it is greater than it would be if agency costs were zero.

The concept of agency costs thus is basic to my analysis. A principal hires an agent to do a job that the principal could not do as well (or as cheaply) himself. The principal wants the agent to strive to do the best possible job at the lowest possible cost. In other words, he wants the agent's incentives to coincide with his own. But the agent is a self-interested person just like the principal. Unless the principal can evaluate and monitor the agent's performance with great accuracy and adjust the agent's compensation accordingly, the agent is unlikely to be perfectly faithful to the principal. He will slack off, or divert revenues to himself, or both.

A CEO is the agent of a principal that consists of the owners of the corporation. When ownership is widely dispersed, as in the modern publicly held corporation, none of the part owners is likely to have an incentive to expend resources on careful selection and monitoring of the CEO; the gains will be largely reaped by the part owners who free ride on the efforts of any part owner who does invest in selection and monitoring. The modest gain that he reaps from his efforts will be less than their cost. With positive agency costs (the costs arising from imperfect agency), CEO compensation is likely to be excessive in the sense of being greater than it would be if the incentives of principal and agent were perfectly aligned and agency costs therefore zero.

Agency costs are fundamental to understanding the corporation; they are not merely a clue to the possibility of excessive compensation of the CEO. It is agency costs, rather than the law of diminishing returns, that limit the efficient size of firms; diminishing returns limit merely how much of a single product a firm can produce efficiently. Because the span of supervision by one person is limited, the more employees a firm has, the more supervisors it requires; and the more supervisors it has, the more supervisors of supervisors it requires because the span of control is limited at every tier of the hierarchy. So as an organization expands, layers of supervisors increase, leading to delay in executing orders, loss of information, attenuation of the directions emanating from the top, and, in short, a weakening of control and coherence. This weakening makes it harder to overcome the inefficiency created by the fact that the larger and more complex an organization, the harder it is to correlate the work of a particular employee with the value of the organization's output, and so the employee's incentives will fall farther out of alignment with those of the firm. Employees will have greater scope to engage in behavior that serves their own interests but not those of the firm. The multidivisional (decentralized) corporate structure is an effort to minimize hierarchical layering, but eventually it too becomes so cumbersome that the growth of the firm is brought to a halt.[5]

Since the very purpose of an organization is to coordinate activity, it is natural to think that an organization must be a more efficient method of coordination than leaving things to private ordering—markets, tacit agreements, bargaining, give-and-take, social networks, customs, and the like. But as Friedrich Hayek famously argued, this commonsensical idea is fallacious.[6] Knowledge—especially knowledge of how to do something rather than knowledge of facts or procedures that can be formulated and communicated as a set of directions—is difficult to transfer.[7] As a result, the manager of a complex system is unlikely to have at his

5. On the costs and benefits of multidivisional corporate structure, see Henry Ogden Armour & David J. Teece, *Organizational Structure and Economic Performance: A Test of the Multidivisional Hypothesis*, 9 BELL J. ECON. 106, 106–08 (1978).

6. *See* F.A. Hayek, *The Use of Knowledge in Society*, 35 AM. ECON. REV. 519 *passim* (1945); F.A. von Hayek, *Economics and Knowledge*, 4 ECONOMICA (n.s.) 33, 47–53 (1937).

7. On the difficulties of intrafirm knowledge transfers, see Gabriel Szulanski, *Exploring Internal Stickiness: Impediments to the Transfer of Best Practice Within the Firm*, 17 STRATEGIC MGMT. J. (SPECIAL ISSUE) 27, 27–32 (1996).

fingertips, or be able readily to obtain, all the information he needs in order to be able to exercise control intelligently. Hence the importance of decentralized methods of coordination, such as the economic market, in which dispersed knowledge—each individual consumer's knowledge of his needs and opportunities, each individual seller's knowledge of his costs, his suppliers, his customers—is aggregated by the price system. Price operates as a method by which private information is diffused throughout a market and ultimately throughout the entire national and world economy. It impounds and conveys information economically and authoritatively. But it does not "work" as the control mechanism within a firm—if it did, one would not need firms, just individual independent contractors. Within the firm (or at least within each division of the firm—for transfer pricing based on market prices is often used to value "sales" by one division, conceived of as a "profit center," to another in a vertically integrated firm), production is guided by supervisors' directives rather than by contract and price, and so the question of how to compensate the workers becomes acute.

The cheaper it is to monitor the worker's performance, the cheaper it is substitute direct control over that performance for a price system in which the worker is paid for his output. But when tasks are complex, the cost of monitoring can be very great. Efforts to reduce that cost include inculcating workers (lawyers, accountants, and engineers, for example) with professional norms, in the hope that they will be motivated to comply with those norms even when there is no supervisor looking over their shoulder. Other devices are legally enforced contracts, tort principles such as fiduciary duty, and of course civil and criminal laws against fraud. Some organizations try to create a high-commitment environment, in which workers identify emotionally with the organization's goals.

But none of these devices fully solves the agency-cost problems of the large business corporation. One observes, for example, that wages usually vary across the employees of the same rank in the same company by much less than the differences in their contributions to the company, and that employees who do satisfactory work can expect real (that is, inflation-adjusted) annual increases in their wages throughout their career with the firm even though their contribution will not be increasing that fast and eventually will not be increasing at all. The first phenomenon—horizontal wage compression—may reflect the difficulty of measuring individual contributions to team

production,[8] though despite that difficulty it often is apparent (and to the other members of the team, as well as to management) that one member of the team is the best; so he is promoted and given a higher salary; in this way, at least marked differences in contribution are rewarded.[9] The second phenomenon—call it vertical wage drift—is intended in part to match income with consumption over the life cycle and in part to solve the "last period" problem.[10] A worker who is "overpaid" as he nears retirement will not slack off (as he might otherwise be inclined to do, having not much of a future with the firm), since if he does and he is fired he will lose his windfall wage. Nonvested pension rights are a parallel device.

Of all the employees of a corporation, the CEO poses the greatest challenge to the control issue. His performance is especially difficult to evaluate because of the uncertainty that surrounds success in business.[11] And his only "supervisor" is the board of directors because management's advantages in proxy fights prevent shareholders from influencing the compensation policies adopted by the board[12]—and the board, as we shall see, is an unreliable agent of the principal (the shareholders). Even if the literature on performance-based evaluation of corporate executives[13] yielded a reliable method of evaluating the performance of CEOs of large corporations, boards of directors would be unlikely to force it on the CEO.

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8. John Bishop, *The Recognition and Reward of Employee Performance*, 5 J. LAB. ECON. S36, S37–S41 (1987); *see also* Harley Frazis & Mark A. Loewenstein, *Wage Compression and the Division of Returns to Productivity Growth: Evidence from EOPP* 3 (U.S. Bureau of Labor Statistics, Working Paper No. 398, 2006), *available at* http://www.bls.gov/osmr/abstract/ec/ec060100.htm ("[O]nly 32 percent of differences in starting productivity are reflected in differences in starting wages, even after accounting for differences in productivity growth.").

9. *See* Robert Gibbons & Michael Waldman, *Enriching a Theory of Wage and Promotion Dynamics Inside Firms*, 24 J. LAB. ECON. 59, 93 (2006).

10. Robert Gibbons & Kevin J. Murphy, *Optimal Incentive Contracts in the Presence of Career Concerns: Theory and Evidence*, 100 J. POL. ECON. 468, 486–95 (1992).

11. *See* Marianne Bertrand & Antoinette Schoar, *Managing with Style: The Effect of Managers on Firm Policies*, 118 Q.J. ECON. 1169, 1170–71 (2003).

12. *See* Yair Listokin, *Management Always Wins the Close Ones* 18–27 (Yale Law & Econ. Paper, Research Paper No. 348, 2007), *available at* http://ssrn.com/abstract=980695.

13. *See, e.g.*, HARVARD BUSINESS REVIEW ON COMPENSATION (Harvard Business Review ed., 2001); Michael C. Jensen & Kevin J. Murphy, *Remuneration: Where We've Been, How We Got to Here, What Are the Problems, and How to Fix Them* ii, 19–22 (Harvard Bus. Sch. Negotiation, Orgs. & Mkts. Research Paper Series, Research Paper No. 04-28, 2004), *available at* http://ssrn.com/abstract=561305.

It is often assumed that agency costs must be higher in government agencies and other nonbusiness organizations than in private, profit-making corporations because the discipline exerted by competition in product markets and capital markets is missing. We shall see that those disciplines are overrated as controls on corporate agency costs. But a neglected point is that governmental and other noncommercial organizations have tools for limiting agency costs that business firms lack and that are by no means ineffectual.[14] Such organizations are often able to create the high-commitment culture that I mentioned,[15] in which employees work hard, often (even at the CEO level) for rather meager pay, because they internalize the goals of their principal. Wages are also kept down by monopsony when the government or other noncommercial employer does not face competition. If you want very much to be a soldier, an intelligence officer, a forest ranger, a priest, or a judge, you have very limited employment options. And low pay, paradoxically, can be a screening device for quality, by eliminating from the applicant pool persons who are not highly committed to the employer's mission. Furthermore, professional schools inculcate professional norms that operate to guide and constrain the work of lawyers, judges, accountants, military officers, teachers, and other professionals who populate noncommercial enterprises, as they do commercial ones—but the latter are controlled by business executives, and business is not a profession.

Government agencies compete for appropriations and sometimes sell in competitive markets, as in the case of government-owned universities and hospitals; and nonprofit firms, such as universities and even churches, compete vigorously. So there are elements of product-market and capital-market competition in the noncommercial sector. And in the case of federal agencies, congressional committees provide a system of oversight—often ineffectual oversight, to be sure, but in that respect no different from the oversight provided by the average board of directors. A difference that favors congressional oversight is that congressional

14. I have discussed these in my work on the reform of our national security intelligence services. *See, e.g.*, RICHARD A. POSNER, PREVENTING SURPRISE ATTACKS: INTELLIGENCE REFORM IN THE WAKE OF 9/11, at 137–38 (2005).

15. *See supra* pp. 986–87.

committees have large professional staffs; boards of directors generally do not have staff.

My point is not that noncommercial organizations are more efficient than business firms, though the former certainly are not plagued by a problem of overcompensation of their CEO equivalents. Probably they are less efficient, though in part this may be because increasingly, given the privatization movement, it falls to government to perform the functions that the commercial sector is unable to perform satisfactorily; it is a kind of supplier of last resort. My point is that although there are methods of limiting agency costs that do not depend on product-market or capital-market competition, they are largely unavailable to business corporations, so that if product competition and market competition do not prevent overcompensation, nothing else is likely to do so.

II. ALIGNING CEO COMPENSATION WITH SHAREHOLDERS' INTERESTS

My focus in this Part is on the adequacy of the competitive, contractual, and institutional devices by which a CEO's incentives are sought to be aligned with that of his principal; as throughout this Article, the focus is on the large, publicly held American corporation.

A. Why Are American CEOs Paid More?

American CEOs are paid on average about twice as much as their counterparts in other countries.[16] This is not because Americans at all levels earn more than their foreign counterparts; the margin is much smaller below the CEO level, and sometimes is negative. The proximate cause of American CEOs' higher incomes is that, as shown in the following table, salaries are a much smaller fraction of their compensation than of foreign CEOs' incomes[17]—less than half—with

16. TOWERS PERRIN, WORLDWIDE TOTAL REMUNERATION 2003–2004, at 20 (2004); Randall S. Thomas, *Explaining the International CEO Pay Gap: Board Capture or Market Driven?*, 57 VAND. L. REV. 1171, 1183 (2004).

17. TOWERS PERRIN, WORLDWIDE TOTAL REMUNERATION 2005–2006, at 24 (2006); TOWERS PERRIN, *supra* note 16, at 24; *see also* Trevor Buck, Azura Shahrim & Stefan Winter, *Executive Stock Options in Germany: The Diffusion or Translation of US-Style Corporate Governance?*, 8 J. MGMT. & GOVERNANCE 173, 174 (2004) (comparing the relative importance of base salary in CEO total compensation in the United States (27 percent) with the United Kingdom (43 percent) and Germany (52 percent)); Minoru Nakazato, J. Mark Ramseyer & Eric B. Rasmusen, *Executive Compensation in Japan: Estimating Levels and Determinants from Tax*

the rest consisting partly of bonuses but mainly of stock options.[18] The difference in the structure of compensation may be due in part to the fact that foreign firms, inhibited by culture and sometimes by law in their ability to economize on labor costs, have less power to influence the profitability and hence market capitalization of their firms. In addition, power tends to be less concentrated in the CEOs of foreign firms than of U.S. firms, so again the ability of the former to influence the value of the firm is less.[19] An offsetting factor, however, is that power is a source of nonpecuniary income, so the greater the power, the greater the full income of the CEO.

Year	Average CEO Compensation ($ millions)	Average Value of Options Granted ($ millions)	Options as Percentage of Total Compensation	Number of Observations
1992	2.329	0.706	30%	363
1993	2.045	0.702	34%	1153
1994	2.151	0.872	41%	1541
1995	2.280	0.862	38%	1596
1996	3.146	1.475	47%	1642
1997	3.829	1.942	51%	1664
1998	4.495	2.258	50%	1724

Records 9, 14 (Harvard Law Sch., John M. Olin Ctr. for Law, Econ., & Bus., Discussion Paper No. 567, 2006), *available at* http://www.law.harvard.edu/programs/olin_center/papers/567_Ramseyer_etal.php; Martin J. Conyon, John E. Core & Wayne R. Guay, How High is US CEO Pay? A Comparison with UK CEO Pay 10–11 (June 2006) (unpublished manuscript), *available at* http://ssrn.com/abstract=907469 (reporting that British CEOs received 43 percent of their total compensation from normal salary, compared with 31 percent for U.S. CEOs). *But see* Alain Alcouffe & Christiane Alcouffe, *Executive Compensation-Setting Practices in France*, 33 LONG RANGE PLAN 527, 536 (2000) (reporting that French governments have "actively promoted" stock options "not only for executives but for all employees, with the underlying intention of aligning interests between the executives, employees and shareholders").

18. The source of the data for this table is Wharton Research Data Services, the home page of which explains:

> Executive Compensation database contains over 2500 companies, both active and inactive. The universe of firms cover the S&P 1500 plus companies that were once part of the 1500 plus companies removed from the index that are still trading, and some client requests. Data collection on the S&P 1500 began in 1994. However, there is data back to 1992 but it is not the entire S&P 1500. It is mostly for the S&P 500.

Wharton Research Data Servs., Overview of Executive Compensation, http://wrds.wharton.upenn.edu/ (restricted access) (last visited Oct. 29, 2008) (on file with the *Duke Law Journal*).

19. Thomas, *supra* note 16, at 1202–09.

1999	5.224	3.183	61%	1799
2000	6.695	4.455	67%	1782
2001	6.324	4.111	65%	1655
2002	4.909	2.576	52%	1657
2003	4.569	1.802	39%	1679
2004	5.205	2.059	40%	1675
2005	5.472	1.860	34%	1638

Stock options have seemed an ingenious device for aligning the incentives of the owners of the corporation with those of the CEO, but they also entail more generous compensation because they impart risk (variance) to the CEO's income, augmenting the risk inherent in the fact that much of a CEO's human capital may be specific to his firm. Because business executives, as distinct from entrepreneurs, do not like risk, they will demand a higher wage if the wage has a substantial risky component; and stock options are risky. This may explain some of the difference between American and foreign CEO compensation, but probably not all, or perhaps not any, because job turnover at the CEO level is greater in Europe than in the United States.[20]

Another possible explanation for the difference between American and foreign CEO compensation is that stock ownership is more concentrated abroad than in the United States.[21] Individual shareholders have a greater incentive to monitor the performance of their firm's managers the more they have at stake and the larger their share of the firm's stock; their relative as well as absolute ownership is relevant because the higher the percentage of voting stock they control, the more they can influence management.

20. In 2005, 35 percent of CEO turnover was involuntary in the United States, whereas the corresponding figure for Europe was 42 percent. Chuck Lucier, Paul Kocourek & Rolf Habbel, *CEO Succession 2005: The Crest of the Wave*, STRATEGY & BUS., Summer 2006, at 100, 109, *available at* http://www.strategy-business.com/media/file/sb43_06210.pdf.

21. Thomas, *supra* note 16, at 1186–89. Professor Thomas's excellent article mounts a powerful case that the differences in CEO pay between the United States and foreign countries are due to factors unrelated to overcompensation, including greater job mobility of U.S. executives and the fact that U.S. CEOs have more authority in their firms than their foreign counterparts do, as well as differences in risk. But Thomas does not attempt to measure the effect, singly or in the aggregate, of these factors. For the contrast between corporate ownership structures in German, Japan, and the United States, see Mark J. Roe, *Some Differences in Corporate Structure in Germany, Japan, and the United States*, 102 YALE L.J. 1927, 1936–41 (1993).

The more effective shareholder monitoring is, the less need there is for incentive-based compensation: the stick is substituted for the carrot. This is a clue that agency costs may indeed lead to overcompensation in corporations in which ownership is widely dispersed, for otherwise why should greater stockholder concentration result in lower CEO compensation?

Yet it might seem that such dispersion should not matter because the CEO's compensation is determined by the board of directors, who are elected by the shareholders. But the board of directors does not solve the problem of agency costs that arises from the dispersed ownership of a publicly held corporation. The more dispersed that ownership, the weaker the incentive of shareholders to base their vote for the slate of proposed directors on a careful study of the candidates, especially because only rarely are there competing slates. Shareholder election of directors resembles the system of voting in the Soviet Union and other totalitarian nations.

Monitors who are not monitored are imperfect agents of their principal, and so in the absence of effective monitoring of directors by the shareholders, boards have weak incentives to limit CEO compensation. The problem is exacerbated by the fact that a board of directors is likely to be dominated by highly paid business executives, including CEOs of other companies.[22] They have a conflict of interest, since they have a financial stake in high corporate salaries, their own salaries being determined in part by the salaries paid to persons in comparable positions in other companies. They also have a natural psychological tendency to believe that the high salaries of corporate executives accurately reflect executives' intrinsic worth.[23] People are strongly inclined to exaggerate their own merit;[24] many people feel underpaid; virtually none feels overpaid.

In addition, directors devote only a fraction of their time to the company.[25] And if they are inside directors (that is, full-time

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22. *See, e.g.*, BEBCHUK & FRIED, *supra* note 3, at 33. Professors Bebchuk and Fried note that "in 2002, 41 percent of the directors on compensation committees were active executives, with about half of them active CEOs. Furthermore, another 26 percent of the members of compensation committees were . . . retirees [who] were for the most part former executives."

23. *See id.*

24. *See* David Koeppel, *Fudging the Facts on a Résumé Is Common, and Also a Big Risk*, N.Y. TIMES, Apr. 23, 2006, § 10, at 1; Ted O'Callahan, *Study: Almost Half of Résumés Are Bogus*, INC.COM, Feb. 28, 2006, http://www.inc.com/news/articles/200602/resume.html.

25. THOMAS DONALDSON, CORPORATIONS AND MORALITY 123 (1982).

employees of the firm), they have a palpable conflict of interest, while if they are outside (independent) directors, they have less access to information about the company than insiders and a smaller stake in the corporation's success. That explains why there is no persuasive evidence that corporate performance is positively correlated with the percentage of independent directors on the corporation's board.[26] Many outside directors have no business experience.

CEOs, moreover, influence the selection of outside as well as inside directors; and there is evidence of mutual back scratching—the directors authorizing generous compensation for the CEO and the CEO supporting generous fees for the directors.[27] CEOs hire and pay the auditors who certify the correctness of the corporation's financial statements, dangle consulting contracts in front of auditors who also offer consulting services, and can influence securities analysts' reports by steering underwriting fees to investment banks whose analysts give their companies glowing reports.

Still another reason to doubt that boards of directors ride herd on CEO compensation is that they can shield themselves from criticism, should the firm perform poorly, by pointing out that they paid top dollar for the CEO. Presumably therefore he was the best candidate for the post, and so in picking him they made the best choice they could have made and should not be blamed for his failures. The generosity of the compensation package they gave him thus becomes evidence that he was indeed the best choice ex ante. Conversely, if to economize they paid a second-best candidate less than they would have had to pay the best, then should he prove a bust they invite a charge of having been penny wise and pound foolish.

The consulting firms that boards of directors hire to advise them on selection and compensation of a CEO play to the self-protective instincts of directors by invariably recommending that the board hire as CEO someone who will demand compensation in the 75th or higher percentile of the CEOs of the firms that the consultant has identified as comparable to the board's firm. The result is an upward ratchet in CEO compensation; the old 75th percentile becomes the new 50th percentile, making the new 75th percentile higher than the

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26. *See* Sanjai Bhagat & Bernard Black, *The Non-Correlation Between Board Independence and Long-Term Firm Performance*, 27 J. CORP. L. 231, 263 (2002).

27. *See, e.g.*, Ivan E. Brick, Oded Palmon & John K. Wald, *CEO Compensation, Director Compensation, and Firm Performance: Evidence of Cronyism?*, 12 J. CORP. FIN. 403, 421 (2006).

old one.[28] The compensation consultants have a conflict of interest because, like many accounting firms, they sell other consulting services to the firm.[29]

In March 2007, a company, The Sharper Image, daringly broke with the pattern and deliberately hired a "cheaper" candidate than recommended to it, Steven Lightman.[30] He lasted only ten months in the job, during which time the price of the company's stock plummeted; the company is now bankrupt, and its bankruptcy preceded the recent financial crisis.[31] One does not know whether any other executive would have done better than Lightman, but doubtless most boards of directors will take The Sharper Image's experience as confirming the wisdom of the conventional approach to CEO compensation.

And almost always the CEO is a member of the board of directors. The reason is that the board of directors of a corporation, unlike the board of trustees of a university, has responsibilities that go far beyond the selection and monitoring of the CEO. (That, along with fund raising and the management of endowment funds, is the principal function of a university's board.) The corporate board participates in shaping corporate strategy. This makes it complicit in the CEO's decisions and reluctant by firing him or cutting his pay to acknowledge a mistake for which it may be jointly responsible.

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28. *See* BEBCHUK & FRIED, *supra* note 3, at 39; Gretchen Morgenson, *Peer Pressure: Inflating Executive Pay*, N.Y. TIMES, Nov. 26, 2006, § 3 (Business), at 1.

29. *See* Joann S. Lublin, *Theory and Practice: Conflict Concerns Benefit Independent Pay Advisers*, WALL ST. J., Dec. 10, 2007, at B3; Gretchen Morgenson, *House Panel Finds Conflicts in Executive Pay Consulting*, N. Y. TIMES, Dec. 6, 2007, at C1.

30. Joann S. Lublin, *Seeking New CEO, Some Boards Skip the Stars; Directors Enter Negotiations with Limits on Pay, Perks; On Tap: Backup Candidates*, WALL ST. J., May 21, 2007, at B1.

31. Joann S. Lublin, *Sharper Image Tries to Refocus with New CEO*, WALL ST. J., Mar. 26, 2007, at A12; Ruthie Ackerman, *Sharper Image Files for Bankruptcy*, FORBES.COM, Feb. 20, 2008, http://www.forbes.com/markets/2008/02/20/sharperimage-lillianvernon-retail-markets-equity-cx-ra-0220markets36.html; *Robert Conway of Conway, Del Genio, Gries & Co., LLC Named Chief Executive Officer Replacing Steven Lightman, Jerry W. Levin to Remain Chairman*, REUTERS, Feb. 14, 2008, http://www.reuters.com/article/pressRelease/idUS155943+14-Feb2008+BW20080214; Yahoo! Finance, Sharper Image Corp. Historical Prices, http://finance.yahoo.com/q/hp?s=SHRPQ.PK&a=02&b=26&c=2007&d=01&e=14&f=2008&g=m (last visited Oct. 28, 2008).

B. The Effect of Compensating CEOs with Substantial Stock Options

The inference that boards of directors are not policing CEO compensation adequately is supported by the fact that the most significant "incentive" component of CEO incomes—stock options—are not well correlated with a CEO's contribution to the value of his company.[32] Many things move a company's stock besides the decisions of its CEO. To tie his income to the value of his company's stock is a bit like tying the salary of the president of the United States to GNP. The analogy is particularly close in an industry like oil, in which the profits of an oil company are largely a function of the price of oil, over which the companies have little control. In addition, tying an executive's compensation to the value of the corporation's stock creates an incentive to manipulate the stock price, and there is evidence that this incentive has been responsible for a number of financial debacles.[33] Not that it is a mistake to tie the CEO's fortunes to those of the corporation, but that can be done by requiring him to place all his financial assets in stock of the corporation.[34] That would solve or at least mitigate the conflict of interest between CEO and shareholders that arises from the fact that he is less diversified and therefore more risk averse than the shareholders would like him to be. Of course he would have to be compensated for bearing the additional risk, but that compensation need not be as generous as it is when it takes the form of stock options, requiring no investment by the CEO but instead an arbitrary decision by the board (his board, as it were) on how many options to issue to him and at what exercise price.

Indeed, the stock-option method of compensating CEOs has been found to induce them to take excessive risks because of the asymmetry of gain and loss: there is no ceiling on the potential gain,

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32. *See* John E. Core, Wayne R. Guay & David F. Larcker, *Executive Equity Compensation and Incentives: A Survey*, *Economic Policy Review*, FED. RES. BANK N.Y. ECON. POL'Y REV., Apr. 2003, at 27, 35; Brian J. Hall & Kevin J. Murphy, *The Trouble with Stock Options*, J. ECON. PERSP., Summer 2003, at 49, 59, 58–61.

33. *See* Sharon Hannes, *Gatekeeper Incentive Compensation* 13–21 & nn.44–78 (Northwestern Law & Econ., Research Paper No. 08-19, 2008), *available at* http://ssrn.com/abstract=1263563.

34. Core et al., *supra* note 32, at 38.

but the loss is truncated at the value of the options.[35] And sometimes there is no loss, because the options are "repriced," enabling the CEO to exercise the option at a profit even though the corporation's stock price has fallen below the original exercise price. Through the repricing of options and other devices, the alignment between the CEO's interests and those of the shareholders is broken.

Another questionable compensation practice is giving the CEO an employment contract entitling him to generous severance pay, so that if he is fired he is cushioned against loss. This reinforces his incentive to take excessive risks, and at the same time signals his lack of self-confidence. The fact that a CEO would ask for a contract, rather than demanding higher pay to compensate him for forgoing it, should be a strong negative signal to the board of directors.

Incentivizing the CEO to take risk, while at the same time cushioning him from the consequences of loss, is a similar kind of mistake to the mistake that led to the savings and loan crisis of the 1980s. Since deposit insurance was not experience-rated, savings and loans institutions (S&Ls) could borrow at low rates and, by making risky loans at high rates, generate high expected returns—but at a high risk of loss. Similarly, the CEO cushioned against loss has an incentive to take high risks in order to maximize the expected value of his stock options.

The choice of stock options as the principal method of providing nonsalary compensation to CEOs may be related to the fact that the income generated by these options, unlike salary or bonus income, until recently[36] did not have to be and usually was not, reported as a corporate expense. (There was also a tax advantage, since above a certain level compensation to high corporate executives is not deductible by the corporation as an expense.) This inference is further supported by the recent revelations that a number of companies backdated the award of stock options in order to guarantee that the options would be in the money,[37] a practice that

35. *See* Wm. Gerard Sanders & Donald C. Hambrick, *Swinging for the Fences: The Effects of CEO Stock Options on Company Risk Taking and Performance*, 50 ACAD. MGMT. J. 1055, 1063 (2007).

36. SHARE-BASED PAYMENT, Statement of Fin Accounting Standards No. 123, § A240 (i) (Fin. Accounting Standards Bd. 2004), *available at* http://www.fasb.org/pdf/fas123r.pdf.

37. *See, e.g.*, Randall A. Heron & Erik Lie, *Does Backdating Explain the Stock Price Pattern Around Executive Stock Option Grants?*, 83 J. FIN. ECON. 271, 294 (2007); Erik Lie, *On the Timing of CEO Stock Option Awards*, 51 MGMT. SCI. 802, 803 (2005); Mark Maremont &

cannot be justified on incentive grounds. In some cases no doubt the practice was not that of the company itself but that of disloyal executives—though this would be further evidence that agency costs interfere with efforts to align managers' incentives with those of the firm.

Repricing stock options and backdating options are not identical, but they are related, the latter being the concealed version of the former. Like other measures that reduce the riskiness of CEO compensation, repricing stock options can be defended on the ground that the riskier the compensation, the higher the competitive wage; and one way to reduce that riskiness and thus lower the wage is to reduce the tight coupling of pay to the market value of a company's stock.[38] But the empirical evidence for such decoupling is weak,[39] and there is a counterargument: In the presence of uncertainty, a principal cannot evaluate the quality of his agent's work directly; he can only infer quality from the firm's output. So the principal is likely to base compensation on that output even though the output is risk laden and so results in his having to pay the agent a premium for bearing risk. But if generous CEO compensation is intended to motivate CEOs to take risks on behalf of shareholders whose diversified portfolios make them less risk averse than the CEO, it seems odd to reduce the riskiness of the CEO's compensation by repricing his stock options in order to reduce his compensation. How can the board have it both ways? I return to this question later.[40]

Of course security analysts, and stockholders having a stake large enough to follow closely the affairs of a company in which they invest, can calculate the expense of stock options. But the ordinary public cannot; and later I discuss evidence that capital markets are not as efficient at pricing securities at the best estimate of their companies' discounted present value as economists and finance theorists used to

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Charles Forelle, *Open Spigot: Bosses' Pay: How Stock Options Became Part of the Problem—Once Seen as a Reform, They Grew into Font of Riches and System to be Gamed—Reload, Reprice, Backdate*, WALL ST. J., Dec. 27, 2006, at A1; Lucian Bebchuk, Yaniv Grinstein & Urs Peyer, *Lucky CEOs* 1 & n.1 (Harvard Law Sch., John M. Olin Ctr. for Law, Econ., & Bus., Discussion Paper No. 566, 2006), *available at* http://ssrn.com/abstract=945392.

38. *See* Rajesh K. Aggarwal & Andrew A. Samwick, *The Other Side of the Trade-Off: The Impact of Risk on Executive Compensation*, 107 J. POL. ECON. 65, 76–92, 103–04 (1999).

39. Canice Prendergast, The *Tenuous Trade-Off Between Risk and Incentives*, 110 J. POL. ECON. 1071, 1077 tbl.1 (2002).

40. *See infra* pp. 1009–11.

think.[41] So just as the corporation's internal control mechanisms cannot squeeze all the agency costs out of the enterprise, neither can the securities markets.

One might think that competition in the corporation's product markets would constrain managerial greed because that greed increases the corporation's costs. But the problem of agency costs is, as I suggested at the outset, inherent in the structure of *any* large firm or other large enterprise; it is therefore likely to plague all major competitors in a market and thus not be eliminated by competition, even if the markets in which the firms sell their products or services are highly competitive. (An exception is markets in which there is strong foreign competition, since foreign corporations pay their CEOs less. It would be interesting to determine whether the compensation of American CEOs is inverse to the market share of foreign firms in the markets of the CEO's firm.) Moreover, the effect of excess CEO compensation on the firm's welfare is indirect. The direct effect is merely to transfer wealth from shareholders to managers rather than to increase costs, although the indirect effect (apart from any distortions of managerial behavior) is to increase the firm's cost of obtaining new equity capital.

Another imperfect, though not wholly negligible, control of agency costs is public opinion. Companies cannot afford to ignore it completely, because adverse public opinion can power legislative or regulatory measures harmful to a company or an industry. There is no doubt that CEOs want to avoid criticism in the media.[42] A spate of newspaper and magazine articles explains the ingenious devices[43] by which CEO compensation that would strike the average person as grossly excessive is concealed from the public. Such articles, along with well-publicized corporate scandals,[44] can exert some downward pressure on CEO compensation.

But this suggests that maybe what the designers of CEO compensation packages are hiding from is not the shareholders but

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41. *See infra* Part II.D.

42. *See* Alexander Dyck & Luigi Zingales, *The Corporate Governance Role of the Media* 30–31 (Nat'l Bureau of Econ. Research, Working Paper No. 9309, 2002), *available at* http://www.nber.org/papers/w9309; *see also, e.g.*, Gretchen Morgenson, *Executive Pay Becomes Political*, N.Y. TIMES, Nov. 5, 2006, § 3 (Business), at 1.

43. *See* Lucian Arye Bebchuk & Jesse M. Fried, *Executive Compensation as an Agency Problem*, J. ECON. PERSP., Summer 2003, at 71, 79–81.

44. *See infra* note 64 and accompanying text.

the general public.[45] A related suggestion is that the gap between European and American CEO compensation is due not to differences in governance structures but to the fact that there is more envy in European societies. Yet there is not zero envy in American society, and envy has to influence corporate policy toward CEO compensation—except to the extent that compensation can be concealed from the public and the media.

C. Other Explanations for High CEO Compensation in the United States

An alternative to the agency-costs theory of the high level of compensation of American CEOs builds on the observation that the average firm is larger in the United States than in Europe.[46] The larger the firm, the harder it is to manage, and so competition among firms to hire the best managers will be more intense in the United States and this (it is argued) will push up the average level of American CEOs' compensation. To correct for this size effect, comparisons of American and European CEO compensation should compare American and European firms of the same size. This is rarely done,[47] though a recent study comparing the incomes in 2004 of the senior executives of 104 Japanese firms and 151 American firms, all in the $1.87 billion to $2.85 billion asset range, found that the Japanese executives earned on average only one fourth what their U.S. counterparts did.[48] Another study, comparing British and American firms of similar size, found that American CEOs earned on average 116 percent more than their British counterparts in 1997, falling to 35 percent in 2003.[49] But the authors assigned most of the British-American difference to the greater variance in American CEOs' income, which arises because American CEOs receive a much higher percentage of their income in the form of stock of their company.[50]

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45. *See* Jeffrey N. Gordon, *Executive Compensation: If There's a Problem, What's the Remedy? The Case for "Compensation Discussion and Analysis,"* 30 J. CORP. L. 675, 679 (2005).

46. *See* Thomas, *supra* note 16, at 1206.

47. TOWERS PERRIN, *supra* note 17, at 24.

48. Nakazato et al., *supra* note 17, at 31.

49. Conyon et al., *supra* note 17, at 13.

50. *Id.* at 26. An earlier study had found a 190 percent pay gap in 1997. Martin J. Conyon & Kevin J. Murphy, Feature, *The Prince and the Pauper? CEO Pay in the United States and United Kingdom*, ECON. J., Nov. 2000, at F640, F640.

An argument related to relative size is based on the observation that the increase in American CEOs' compensation in recent decades (a sixfold increase, inflation adjusted, since 1980, but before the current financial crisis) is the same as the increase in the market value of their firms.[51] The argument is that the chief executive of a more valuable firm is more productive than the chief executive of a small firm, since, if he increases the firm's value by a given percentage, the absolute increase in the firm's value will be greater. If there are two equally skilled managers and one manages a grocery store and the other IBM, the latter is creating greater value.

This assumes that firm value and executive skills are complements. The real complementarity may be between firm *size* and executive skills rather than between firm *value* and executive skills. The relevant difference between IBM and a grocery store may be relative size.

And both the size and the value theories ignore nonpecuniary compensation. The larger and more valuable the firm, the more prominent, prestigious, and (in the case of size) the more powerful the CEO is. Prominence, prestige, and power are sources of enormous pleasure to the people who claw their way to the top of large organizations and in a competitive market should limit their pecuniary income, in much the same way that long vacations limit teachers' salaries.

Notice that both the size and the value theories imply that the supply of highly skilled managers is inelastic. Were it elastic, the increased demand for managers would not result in higher pay, but simply in an influx of qualified persons from other activities (including the management of divisions of large firms). The inelasticity of supply of highly skilled managers implies that the higher pay of these managers is a scarcity rent, which could be taxed away without reducing the supply significantly, though there would be

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51. *See* Xavier Gabaix & Augustin Landier, *Why Has CEO Pay Increased So Much?* 1 (MIT Dep't of Econ., Working Paper No. 06-13, 2006), *available at* http://ssrn.com/abstract=901826 ("[T]he six-fold increase of CEO pay between 1980 and 2003 can be fully attributed to the six-fold increase in market capitalization of large US companies."); *see also* Steven N. Kaplan & Joshua Rauh, *Wall Street and Main Street: What Contributes to the Rise in the Highest Incomes?* 41 (Ctr. for Research in Sec. Prices, Working Paper No. 615, 2007), *available at* http://ssrn.com/abstract=931280 ("[T]he total amount of capital per employee at the top 50 firms in the securities industry . . . increased by almost nine times in real terms from 1987 to 2004."). The idea is not entirely new. *See* R. Glenn Hubbard, *Pay Without Performance*: *A Market Equilibrium Critique*, 30 J. CORP. L. 717, 718–19 (2005).

some reduction because the elasticity of supply is not zero. But compensation that is "generous" merely because it contains scarcity rents is not overcompensation as I have defined the term.

The correlation between firm size and CEO compensation could be due not to a scarcity of skilled managers of large enterprises (in fact, the upper ranks of large companies usually contain a number of highly skilled and experienced managers eager for a shot at a CEO's job and able to perform it creditably) but simply to the fact that the larger the firm's market value, the easier it is to hide the compensation of the top executives. If a 10 percent increase in the firm's value is associated with a 3 percent increase in its CEO's compensation,[52] then the percentage of the firm's value that is going to him will have fallen, and the increase in his compensation is unlikely to be criticized. This may be a major reason why so many mergers have been found not to increase earnings per share.[53] The aggregate value of an enterprise will be greater as a result of a merger; that will enable future increases in the CEO's compensation to be hidden more easily; and so the CEO will have an incentive to make the merger even if it will not increase shareholder value. In addition, he can trade on the common and correct belief that greater skill is required to manage a larger than a smaller enterprise.

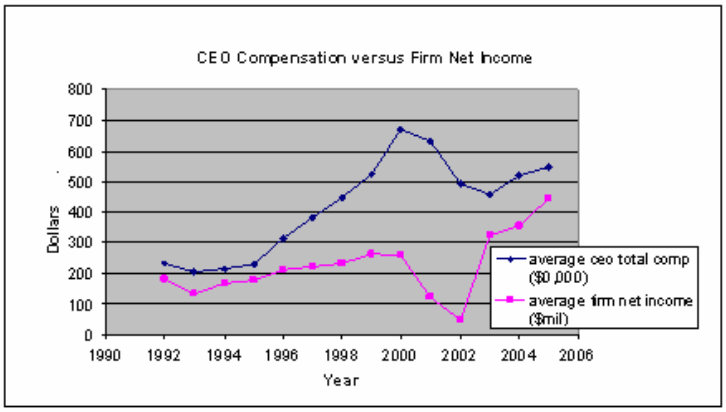
A related "hiding" point is that as long as CEO compensation does not increase relative to the corporation's income, shareholders are unlikely to object even though the increase in the corporation's income is unlikely to result from its CEO's having become better (or from the corporation's having acquired a new CEO at a premium wage). As shown in the following graph,[54] CEOs' total compensation (the top line in the graph) is closely related to (though, until very recently, rising faster than) the income of the firms in the sample,

52. "An old rule of thumb holds that for every 10% increase in a company's size, the CEO's pay goes up 3%." David Wessel, *With CEO Pay, Size Does Matter*, WALL ST. J., Nov. 2, 2006, at A2.

53. *See, e.g.*, Jarrad Harford & Kai Li, *Decoupling CEO Wealth and Firm Performance: The Case of Acquiring CEOs*, 62 J. FIN. 917, 917 (2007) ("[E]ven in mergers where bidding shareholders are worse off, bidding CEOs are better off three quarters of the time."); U.E. Reinhardt, *Conglomerate Earnings per Share: Immediate and Post-Merger Effects*, 47 ACCT. REV. 360, 363–64 (1972); David Harding & Phyllis Yale, *Discipline and the Dilutive Deal*, HARV. BUS. REV., July 2002, at 18, 20; *see also* Gregor Andrade, Do Appearances Matter? The Impact of EPS Accretion and Dilution on Stock Prices 1 (June 1999) (unpublished manuscript), *available at* http://ssrn.com/abstract=172868.

54. The data in this graph are from Wharton Research Data Servs., *supra* note 18.

even though it is unlikely that the increased profitability of a large group of firms is due to increased quality of CEOs, especially if the supply of CEOs competent to manage large firms is inelastic.



The graph helps to explain why concern with CEO compensation is a relatively recent issue. The rise in firm income has not been paralleled by a rise in personal incomes. With CEO compensation rising in tandem with firm incomes (in fact even faster), the gap between that compensation and the compensation of the average worker has grown.[55] This growth has incited a search for explanations, and one candidate is overcompensation, specifically that rising firm size and income provide better opportunities to hide CEO compensation.

Furthermore, even if it were true that executive compensation should as a matter of economic efficiency increase in proportion to increase in firm size, this would not prove that the compensation of executives of U.S. firms was appropriate, for if compensation was excessive at the beginning of the period studied it would be so at the end if it grew proportionately with the growth of the firm.

Still other students of the compensation issue argue that from the shareholders' standpoint, the critical "managerial" skill is not the ability to manage a large enterprise efficiently but rather the perhaps scarcer ability to use public relations skills and accounting

55. Carol Hymowitz, *In the Lead: Pay Gap Fuels Worker Woes*, WALL ST. J., Apr. 28, 2008, at B8 (reporting that average CEO pay in 2007 was more than 180 times average worker pay—twice the ratio in 1994).

legerdemain to create a bubble in the corporation's stock.[56] The more the corporation's stock is worth, the lower the cost to the corporation of acquiring additional capital, either by acquisition of other firms or by issuing new shares, and also the lower the cost of attracting good executives and other employees. If this analysis is correct, it is efficient to base a CEO's compensation on the performance of the corporation's stock rather than on the company's fundamentals, such as its profits, revenue, and costs. But it is efficient in a private rather than in a social sense.

Another defense of excessive-seeming CEO compensation is that such compensation is necessary to motivate CEOs to take large risks, which is in the interest of the shareholders.[57] Suppose that by virtue of holding a diversified portfolio, an investor is risk neutral. A CEO, in contrast, is likely to be risk averse because his human capital, financial capital, and reputation capital are all likely to be highly positively correlated with the performance of the firm.[58] So if he takes risks with the firm that increase the probability of bankruptcy, he will not be consoled by the fact that his risk taking will also be increasing the probability of extraordinary returns for the shareholders. The risk-neutral investor may have to pay the CEO a large compensation premium in order to induce him to take the level of risk with the firm's assets that the investor wants.

This argument is distinct from but complementary to the argument I mentioned earlier that under conditions of uncertainty performance-based compensation is superior to the payment of a fixed amount because the principal cannot evaluate the quality of the agent's work directly but can only observe output.[59] The arguments coalesce in providing grounds for expecting CEO compensation to have a large risk component, and therefore to be "generous" in order to compensate the risk-averse CEO for taking risks.

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56. Andrei Shleifer, *Does Competition Destroy Ethical Behavior?*, AM. ECON. REV., May 2004, at 414, 415–16.

57. *See* Aggarwal & Samwick, *supra* note 38, at 65; Carol Callaway Dee, Ayalew Lulseged & Tanya S. Nowlin, *Executive Compensation and Risk: The Case of Internet Firms*, 12 J. CORP. FIN. 80, 94 (2005).

58. *See, e.g.*, James A. Brickley, James S. Linck & Jeffrey L. Coles, *What Happens to CEOs After They Retire? New Evidence on Career Concerns, Horizon Problems, and CEO Incentives*, 52 J. FIN. ECON. 341, 342 (1999).

59. *See supra* p. 1002.

But the arguments are plausible mainly with respect to the subset of firms that are owned by private-equity firms. If the private-equity investors want the CEO of their firm to take risks, they can compensate him, and—critically—because their ownership is concentrated rather than dispersed, they can monitor his behavior to assure that he takes risks. Dispersed ownership will find it difficult to overcome the CEO's reluctance to take risks that will increase the likelihood of bankruptcy. A board of directors that is ineffectual in squeezing the excess out of CEO compensation will be ineffectual in designing a compensation package that will squeeze out that excess automatically, as it were.

Thus the fact that the CEOs of private-equity firms are (it appears—there are no systematic data) to be more generously compensated than the CEOs of publicly held corporations does not undermine the inference that the CEOs of publicly held corporations are overcompensated. The competitive compensation for taking really big risks of failure—career-ending risks, perhaps, because a CEO who takes a big risk and loses may have great difficulty rehabilitating his reputation in the business community—is high. But a firm will not pay such compensation if it cannot ensure that the CEO will actually take those risks; and a publicly held corporation, operating through its board of directors, is unlikely to be able to ensure that he will do that.

It could be argued, finally, that "hiding" CEO compensation is a good thing because if the true level of compensation were publicized it would actually drive up compensation. Some CEOs would learn that they were being paid less than their peers, and they would push for more. This is especially likely because people are highly sensitive to their relative as well as their absolute wage. This in turn is partly because of *amour propre* (people are naturally hierarchical—when some years ago the *Wall Street Journal* published a list of the world's wealthiest people, only one person on that list was happy), and partly because of the signaling effect—if X is paid less than Y at a comparable company, the implication is that X is not as good as Y. This theory of "hiding" complements the earlier suggestion that the motive for hiding compensation may be to fend off the media and the general public rather than the shareholders.

D. Evidence of CEO Overcompensation Provided by Behavioral-Finance Theory

The inference that CEO compensation is excessive is supported by the challenge to efficient market theory mounted by the behavioral-finance school. I have long defended a strong form of the efficient market theory,[60] and I continue to believe that it has substantial explanatory value; it unquestionably has stimulated important legal reforms, such as the reform of trust investment law to allow trustees to adopt the buy and hold strategy, as distinct from having to analyze the prospects of each stock or other asset in the trust portfolio.[61] But the implications of behavioral finance for efforts to defend CEO compensation by reference to efficient market theory are profound.[62]

The efficient market theory assumes that securities markets operate as if the traders in them were rational (which of course does not mean omniscient—information is costly and "rational ignorance" therefore not an oxymoron). The "as if–ness" of the assumption needs to be emphasized. It could be that many traders are irrational ("trading on noise" rather than trading on information), yet if their deviations from rationality were random the average price of a security would not be affected. Even if their deviations were systematic, the effect on the average price would be slight if arbitrageurs were alert for bargains. Arbitrageurs are speculators who look for situations in which the identical thing or two very similar goods (which could but need not be securities) are selling for different prices. An arbitrageur might, for example, take advantage of price discrimination by buying a product from those charged the lower price because their demand is more elastic and reselling to those charged a higher price because their demand is less elastic.

Suppose that because of an irrational fondness for stock *X* over very similar stock *Y*, the price of *X* rises relative to that of *Y* even

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60. *See, e.g.*, RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 451–52 (6th ed. 2003).

61. *See* RESTATEMENT (THIRD) OF TRUSTS § 227 (1992); Max M. Schanzenbach & Robert H. Sitkoff, *Did Reform of Prudent Trust Investment Laws Change Trust Portfolio Allocation?*, 50 J.L. & ECON 681 (2007).

62. *See, e.g.*, ANDREI SHLEIFER, INEFFICIENT MARKETS: AN INTRODUCTION TO BEHAVIORAL FINANCE (2000). For an overview of behavioral finance theory, see generally Nicholas Barberis & Richard Thaler, *A Survey of Behavioral Finance*, *in* 1B HANDBOOK OF THE ECONOMICS OF FINANCE: FINANCIAL MARKETS AND ASSET PRICING 1053, 1053–123 (George M. Constantinides, Milton Harris & René M. Stulz eds., 2003).

though the expected returns to the two stocks are the same. By selling *X* short and buying *Y*, the arbitrageur makes a more or less guaranteed profit. For if the two stocks are indeed close substitutes, a continued rise in the price of *X* is likely to be accompanied by a rise in the market value of *Y*, so that the arbitrageur will (though this will depend on his borrowing costs) make up in profits on *Y* what he will lose if, contrary to his expectation, the price of *X* does not fall. If it does fall, his short selling will be profitable, and he is unlikely to incur a commensurate loss on *Y*, since *Y* was undervalued relative to *X* when it sold for less (since the stocks are so similar). The existence of the close substitute is what enables the arbitrageur to minimize risk. Without that substitute, his selling *X* short would be very risky because he cannot be confident that it is overvalued; more precisely, he cannot be confident that the market will "wake up" and realize that it is overvalued.

But we must consider the bearing of the fact that "[i]nvestors follow the advice of financial gurus, fail to diversify, actively trade stocks and churn their portfolios, sell winning stocks and hold on to losing stocks thereby increasing their tax liabilities, buy and sell actively and expensively managed mutual funds, follow stock price patterns and other popular models."[63] Although these pathologies have long been known, the behavioral-finance literature finds that they are systematic rather than random, that therefore they do not cancel out, and thus that they influence aggregate stock market behavior and investment performance. Investors are more reluctant to sell losing than winning stocks ("loss aversion"). For the same reason, they demand a higher premium for owning stocks relative to bonds (because stocks have more downside risk than bonds and loss aversion implies that downside risk weighs more heavily in the investor's decision than upside opportunity) than risk aversion would warrant, given the possibility of reducing risk by means of diversification. And because people have difficulty with probabilities and tend therefore not to understand that runs are consistent with chance, they see patterns where they do not exist and therefore give greater weight to stocks' short-run performance—and to the short-run performance of money managers—than is warranted. Professional money managers—or at least many of them (for professionals are not immune from cognitive defects)—know better.

63. SHLEIFER, *supra* note 62, at 10.

But if they are competing for the investment dollars of unsophisticated investors, they must cater to those investors' irrational predilections.

Arbitrage cannot be depended on to eliminate these irrationalities because arbitrage works imperfectly when there are no good substitute securities for the ones that the arbitrageur thinks are overvalued or undervalued. And even if there are, the market may not wake up in time for the effort at risk minimization to work. In my example, if the price of *X* keeps rising after the arbitrageur has sold it short and bought *Y*, but *Y* does not rise at the same time, he may suffer staggering losses before the two stock prices finally converge. Since arbitrage is an incomplete measure for limiting risk, investor irrationalities can cause systematic deviations between stock price and fundamental value. Irrational investor behavior is also promoted by mutual funds, brokers, and other securities professionals who see profit opportunities in exploiting that behavior.

The extent of these deviations from rationality is a matter of controversy. And as is often the case with insights from cognitive psychology, the policy implications are unclear. What is true is that the more gullible investors are, the more important it is to have effective remedies against securities fraud. Suppose that if a mutual fund advertised that above-average performance for two years running proves that its performance will be above average in the third year, the law would not deny credulous investors a fraud remedy on the ground that no one could be so dumb as to believe such a thing. But to go much beyond this and, for example, forbid people to buy stocks without first passing a test in clear thinking would hardly be feasible.

Behavioral-finance theory strengthens the inference that CEO compensation is excessive. It does this in two ways: by showing that investors, even professional ones, may not evaluate compensation issues with cool rationality, and by showing that stock-price movements, upon which much of that compensation is based via the grant of stock options, may not be reliable estimates of underlying values, and hence of CEOs' contribution to those values.

E. CEO Compensation and Corporate Fraud

The issue of overcompensation is at one end of a spectrum of concern about the behavior of corporate executives. At the other end

is criminal behavior by CEOs and other high-level corporate executives. In recent years a number of corporate executives of major corporations were prosecuted for corporate frauds that in some cases (such as Enron and WorldCom) led to huge shareholder losses. The well-publicized misconduct of these managers spurred enactment of the Sarbanes-Oxley Act of 2002,[64] which increased the penalties for corporate fraud, stiffened auditing standards (and forbade companies to purchase consulting services from their auditors), increased the authority of independent directors, limited lending by corporations to their executives, and in these and other ways sought to make corporate managers more faithful agents of their (nominal) principals, the shareholders.

Several of the recurrent types of misbehavior that have been alleged relate directly to the issue of overcompensation of CEOs. They are (besides the failure to expense stocks options and the backdating of stock options, both discussed already)

1. failure to disclose in the company's financial statements the cost of nonpecuniary benefits to officers, including retired officers, such as use of company aircraft and residences;
2. failure to disclose loans by corporations to their officers, or the subsequent forgiveness of the loans;
3. inadequate supervision of management by boards of directors, particularly the audit and compensation committees of the board; and
4. Lavish issuance of stock options to corporate executives, a practice claimed to have caused management to become unduly preoccupied with, and desirous of manipulating, short-term fluctuations in stock prices.[65]

Other recurrent corporate abuses are indirectly related to executive overcompensation:

1. Inflating the value of corporate assets (and creating the appearance of less debt) by transferring some of them at inflated prices to so-called "special purpose entities," and

64. Sarbanes-Oxley Act of 2002, Pub. L. No. 107-204, 116 Stat. 745 (codified in scattered sections of 11, 15, 18, 28, and 29 U.S.C.).

65. *See generally* BEBCHUK & FRIED, *supra* note 3.

conflicts of interest when corporate executives are paid for managing the controlled entities.[66]

2. Accounting firms' failure to audit their clients carefully, perhaps owing to the conflict of interest inherent in the fact the clients pay the auditor and to the further fact that they may also be paying their auditor for consulting services, thus increasing the auditor's dependence on the company's good opinion.[67]

The common element in the list is enrichment of corporate officers by giving them corporate benefits concealed from or inadequately disclosed to the corporation's nominal owners, the shareholders, or by concealing from the shareholders bad news that would cause the corporation's stock price to plummet and with it the officers' compensation. The charge, in short, is corporate looting by insiders.

Corporate misconduct is not new, but does seem to have increased since the mid-1990s,[68] a period characterized by a dramatic stock market boom followed by an equally dramatic bust. When the price of a corporation's stock is rising rapidly, shareholders' and directors' concern with diversion of profits to officers is attenuated. The diversion is likely to seem inconsequential (even if rising in absolute terms, it may be falling in percentage terms if the stock market is rising), and the officers can claim with greater or less plausibility that the rise is due, in part anyway, to their efforts, and so a greater reward to them is justified on incentive grounds. When the bust occurs, the officers have an incentive to employ tactics that will postpone the collapse in the value of their company's stock and thus buffer the impact of the bust on their personal wealth.

F. CEO Compensation and the Financial Crisis

The financial crisis that hit the nation and the world in September 2008 and appears at this writing to have precipitated the first major U.S. depression since the Great Depression of the 1930s

66. Larry E. Ribstein, *Market vs. Regulatory Responses to Corporate Fraud: A Critique of the Sarbanes-Oxley Act of 2002*, 28 J. CORP. L. 1, 4–6 (2002).

67. *Id.* at 13–14.

68. Kathleen A. Lacey, Barbara Crutchfield George & Clyde Stoltenberg, *Assessing the Deterrent Effect of the Sarbanes-Oxley Act's Certification Provisions: A Comparative Analysis Using the Foreign Corrupt Practices Act*, 38 VAND. J. TRANSNAT'L L. 397, 404–14 (2005).

cannot be attributed directly to executive overcompensation, but there is an indirect relation. With compensation tied by stock options to share value, with senior executives' risk aversion offset by generous severance packages and repricing of options, and with share values a positive function to a significant degree of the riskiness with which the firm invests its assets, CEOs have an incentive to increase leverage (borrowed relative to equity capital). Since the cost of debt to a firm is fixed (that is, the firm must repay the debt with interest regardless of the firm's revenues), but its revenues vary with price and output, the smaller the firm's equity cushion relative to its total assets, the greater the risk of failure. The financial crisis was precipitated by the fact that the risks taken by financial firms were highly correlated and closely tied to housing prices (many of the assets held by banks and other financial institutions were in the form of securities backed by mortgages), so that when the housing bubble burst, much of the world's financial industry was at or over the brink of insolvency.[69]

A particularly insidious effect of executive overcompensation in relation to the financial crisis, besides the effects just discussed, is the incentive it imparts to CEOs to ride a bubble until it bursts. During the housing bubble, housing prices and therefore mortgage demand were rising but interest rates were very low, so that the greater a lender's leverage the greater its profits. Management that felt it was in a bubble situation could always reduce its borrowing and therefore its lending, but in the short run—which is to say until the bubble burst—it would be sacrificing substantial profits. The greater a CEO's compensation is, and the closer it is tied to the price of his corporation's stock, the greater his incentive to maximize short-run profits. The compensation he can earn in the short run provides a form of insurance against the consequences of mistiming the bubble and failing to jump off it before it bursts, as does a generous severance package.

III. THE SOCIAL COSTS OF OVERCOMPENSATING CEOS, AND WHAT TO DO ABOUT THOSE COSTS

Theory and evidence suggest that there is indeed overcompensation of the CEOs of American publicly held

69. *See* Nicholas Varchaver & Katie Benner, *The $55 Trillion Question*, FORTUNE, Oct. 13, 2008, at 134, 134; *Wall Street's Bad Dream: The Financial Crisis*, ECONOMIST, Sept. 20, 2008, at 85, 85.

corporations.[70] We must consider to what extent it imposes significant social costs or merely redistributes wealth from the shareholders to CEOs and other senior corporate executives, and in light of those costs and that redistribution what if anything should be done to reduce overcompensation.

The redistributive effects are obvious and are troubling from an ethical standpoint because, by definition, overcompensation is a kind of theft from shareholders. But there are social costs as well—that is, not only is the economic pie resliced in favor of CEOs and other senior management, but in the process the pie becomes smaller.

The most dramatic cost is the one just discussed: the contribution that CEO overcompensation appears to have made to the financial crash—probably a small contribution, but to an economic catastrophe. Even in normal times, there are social costs to overcompensation.[71] Corporate executives can and often do expend resources—the equivalent of the cost of burglar tools—to increase their compensation in ways other than by working harder and smarter. And potential victims have an incentive to incur costs to prevent themselves from becoming victims; so investors may be deflected from corporate stock to types of investment that yield a lower social return. These are social costs of CEO overcompensation too.

In addition, overcompensation implies a misallocation of executive talent. Talented executives are drawn to enterprises that for whatever reason overpay their CEOs, relative to other enterprises, including nonprofit and governmental entities, where the ability to hide excessive compensation is more limited (no stock options, for example). And overcompensation creates, as we know, hiding incentives that may distort managerial behavior, for example by inducing inefficient corporate acquisitions because by increasing the

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70. *See* GRAEF S. CRYSTAL, IN SEARCH OF EXCESS: THE OVERCOMPENSATION OF THE AMERICAN EXECUTIVE *passim* (1991); *see also* C. Terry Grant & Gerry H. Grant, *Can Regulations Curb Excessive Executive Pay?*, STRATEGIC FIN., Sept. 2008, at 31, 36 (noting that the increase in the total median executive compensation between 1992 and 2006 outpaced the rate of growth in the net income and operating cash flows of the corresponding companies).

71. *See* Joshua A. Kreinberg, Note, *Reaching Beyond Performance Compensation in Attempts to Own the Corporate Executive*, 45 DUKE L.J. 138, 145 (1995); John C. Gamboa & Mary Ann Mitchell, Editorial, *The Fed Is Overlooking the Inflationary Effect of CEO Compensation*, S.F. CHRON., Apr. 20, 2000, at A27.

firm's income they make it easier to conceal the water in the CEO's compensation.[72] Some means of concealment are fraudulent.

The redistributive effects and social costs cannot be quantified (nor is there a common metric by which to aggregate the two types of effect), but appear to be sufficiently large, especially in light of the recent financial crisis, to warrant serious consideration of possible ameliorative measures. Care is necessary, because efforts to reform corporate governance can easily backfire, even the kind of reform decreed by the Sarbanes-Oxley Act to prevent outright fraud.[73] For example, the inflation of corporate assets by transferring them at inflated prices to special purpose entities (one of Enron's principal abuses) is a form of fraud when the inflation is concealed from investors in the transferor corporation. But fraud has long been criminal, and the successful prosecution of the Enron executives suggests that adequate legal tools were in place to deal with such conduct before the Sarbanes-Oxley Act was passed. It would be a mistake, moreover, to forbid all transfers of assets to special-purpose entities; such transfers confer genuine economic benefits, namely the disintermediation of debt[74] (that is, the better matching debt to the risk preferences of particular investors). And quite apart from the Sarbanes-Oxley Act it would be possible, invoking what in tax law is called the "substance over form" doctrine,[75] to forbid such transfers when they have no economic purpose but are designed merely to shift corporate debt from one pocket to another in the hope that investors will have difficulty finding the second pocket. Similarly, although there is evidence that the Act has reduced the practice of backdating stock options,[76] it has not eliminated it, and fraud investigations by the

72. *See, e.g.*, Bebchuk & Fried, *supra* note 43, at 88–89; *see also* Nakazato et al., *supra* note 17, at 9.

73. Ribstein, *supra* note 66, at 26–35; Roberta Romano, *The Sarbanes-Oxley Act and the Making of Quack Corporate Governance*, 114 YALE L.J. 1521, 1529–43 (2005). For strong empirical support, see Kate Litvak, *The Effect of the Sarbanes-Oxley Act on Non-US Companies Cross-Listed in the US*, 13 J. CORP. FIN. 195, 218–27 (2007).

74. Steven L. Schwarcz, *Enron and the Use and Abuse of Special Purpose Entities in Corporate Structures*, 70 U. CIN. L. REV. 1309, 1315 (2002).

75. *See, e.g.*, Comm'r v. Court Holding Co., 324 U.S. 331, 334 (1945); Gregory v. Helvering, 293 U.S. 465, 470 (1935); Yosha v. Comm'r, 861 F.2d 494, 499 (7th Cir. 1988).

76. Bebchuk et al., *supra* note 37, at 12–13; Daniel W. Collins, Guojin Gong & Haidan Li, The Effect of the Sarbanes-Oxley Act on the Timing Manipulation of CEO Stock Option Awards 20–23 (Nov. 16, 2005) (unpublished manuscript), *available at* http://ssrn.com/abstract=850564.

Department of Justice are likely to prove a superior deterrent. Likewise the investment banks' practice of allocating IPO shares to individuals who can steer lucrative underwriting work to the bank is a form of commercial bribery and hence fraud, and the scandals may bring it to a halt without need for legal action.

As for the receipt by accounting firms of fees for consulting services, as well as for auditing, requiring the corporation to disclose to investors the terms of its relations with its auditors, thus leaving the investors to penalize corporation by bidding down its stock price if they think the auditor has been "bought," is as far as the law should go. Not that this is a complete solution to the problem, for we know that behavioral-finance theory has raised serious doubts about the efficiency of the stock market's response to such information. But the quest for perfection is elusive. It is hard to see who other than the audited firms would pay the auditor or how clients could be prevented from recycling the fees they now "overpay" auditors (the overpayment being the inducement for the auditor to report a favorable audit) for consulting services as higher fees for auditing. The fundamental conflict of interest would remain.

Stock options should not be forbidden, as they do have some tendency to align managerial compensation with firm performance.[77] Their efficacy and appropriateness, as well as their magnitude and their net impact on the value of the firm, are receiving greater market scrutiny, as they should, for as I said earlier they are a clumsy instrument for incentivizing managers. In principle, it would be preferable to base stock options on the performance of a company's stock relative not to some base period but to the stock of the other companies in the same industry. The problem is that picking the comparison group (all companies? all companies of the same size? all companies of the same profitability, capital structures, markets?) involves considerable uncertainty. It is hardly a task to entrust with confidence to the Securities and Exchange Commission or some other regulatory agency. If aware of its limitations the agency decided to regulate with a light hand, it would be acting prudently but it would also be enabling firms to sneak overcompensation in by the back door, by adroit choice of the comparison group.[78]

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77. Brian J. Hall & Jeffrey B. Liebman, *Are CEOs Really Paid Like Bureaucrats?*, 113 Q.J. ECON. 653, 684–85 (1998).

78. *See*, *e.g.*, Morgenson, *supra* note 28.

restricted stock in the corporation—stock that he could not sell for a specified number of years. Such a reform would combat the dangerous incentive of highly compensated CEOs to maximize short-term corporate profits and take undue risks with the corporation's assets.

Third, consideration should be given to steeply increasing the marginal income tax rate of persons who have very high incomes. Such incomes typically contain a good deal of economic rent (that is, income above what the person could obtain in his next best employment), and taxing economic rents is, in principle anyway (I will explain this qualification shortly), highly efficient because it has minimal substitution effects.[80]

And fourth, proxy fights should perhaps be easier to wage. With competing slates of directors, directors might, as in democratic political competition, become more faithful agents of the shareholders, their electorate.[81]

I said that these measures deserve serious consideration, not that they should be adopted forthwith. They have drawbacks. For example, in practice progressive taxation abounds with loopholes and distorts the allocation of resources, and, unless it took the form of an "excess profits" tax, which would be wholly unmanageable, it would hit incomes that contained substantial economic rents, and incomes that did not, indiscriminately.

And forcing greater transparency on corporations by requiring that they disclose publicly the full value of their senior executives' compensation might turn out to be a case of closing the barn door after the horses have escaped. For in the wake of the financial crisis, the issue of CEO compensation has become so controversial that efforts to conceal compensation are likely to fail.[82] So perhaps attainment of transparency can thus be left to the market, aided by increasingly aggressive media.[83]

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80. *See* JOHN B. TAYLOR, ECONOMICS 350 (2d ed. 1998).

81. *See* Lucian A. Bebchuk & Jesse M. Fried, *Pay Without Performance: Overview of the Issues*, 30 J. CORP. L. 647, 672–73 (2005).

82. Steve Lohr, *In Bailout Furor, Wall St. Pay Becomes Target for Congress*, N.Y. TIMES, Sept. 23, 2008, at A1.

83. *See*, *e.g.*, Erin White & Aaron O. Patrick, *Shareholders Push for Vote on Executive Pay*, WALL ST. J., Feb. 26, 2007, at B1.

The measures I have suggested for consideration should not, however, be brushed aside on the ground that the costs may exceed the benefits when all direct and indirect consequences are considered. In the wake of the financial crisis there is almost certainly going to be some regulation of executive compensation—it has begun in the form of conditions in the recent bailouts of insolvent financial firms. The question is not whether, but how best, to limit executive compensation.